

# THE MICHIGAN FARMER,

A WEEKLY JOURNAL OF AFFAIRS

Relating to the Farm, the Garden, and the Household.

NEW SERIES.

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## The Michigan Farmer,

R. F. JOHNSTONE, EDITOR.

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## The Farm.

### What is Pedigree and Purity of Descent?

The question of thorough breeding is getting to be of some importance in this State, as we can learn by the character of some of the protests which were made during the State Fair, both in horses and cattle. It may be well, therefore, to give some attention to the subject for the purpose of ascertaining what is meant by a pedigree, and in what consists its perfection, or its imperfection; what are its uses, and what is its value? and what weight should be given to it in judging of animals? We shall discuss first, the subject as connected with the pedigrees of cattle leaving that of horses till the last.

It is conceded as a well known historical fact, that all the domesticated quadrupeds used for farming purposes, have been brought to this continent by the European settlers; and that since the first colonizations of Virginia or at Plymouth rock, the horned cattle of the country have increased in numbers solely from the animals brought from time to time into the several settlements, from the various localities of Europe, from which the colonists might happen to come.— Little or no attention was given for many years to the quality, breeding or stock of which the several importations consisted; all were allowed to mix together, numbers rather than quality being the consideration which was thought of. Hence we have at the present moment spread over the country, a stock of horned cattle that have no specific character or points by which they can be designated as a breed. They are usually called native, to distinguish them from the more recent importations which have been bred true to certain descent and qualities that are esteemed most valuable for the agriculturist.— Whilst the cattle of the United States were thus mixed up, it must be borne in mind that in the countries from which they came no such admixture of stock took place. In England, whence the most of the cattle of the United States have originated, from a time coeval with the most early historical period of that

country, certain races of cattle seem to have occupied particular districts, and to have been kept by themselves, partly through the local tastes and habits of thought prevailing amongst the inhabitants, and partly because the race thus located were found best adapted to the climate, the soil, the vegetable production, and the general character of the country. This will be made very plain if a little attention is given to the localities of the breeds best known to the people of this State.

For instance, at our late State Fair we had exhibited four distinct tribes or breeds of cattle, namely, the Shorthorns or Durhams, the Devons, the Herefords and the Ayrshires. Each of these is named from the locality in England where the race has existed from time immemorial, and though improved and rendered more adapted to the wants of the modern farmer by the skill of the breeder. Each of these breeds, it is well known have distinct characteristics of form, color, quality and habits which seem to have been endowed by nature in her effort to render them adapted to the products and the climate in which they had been placed, and which the utmost skill has only attempted to develop or modify.

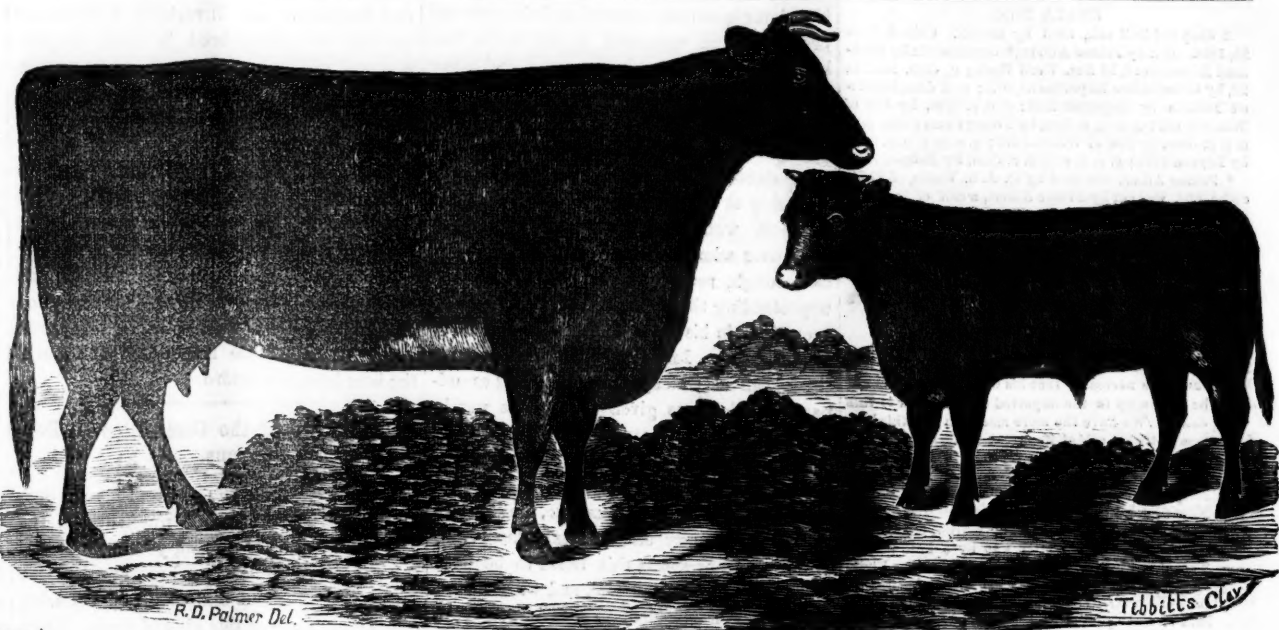
The Shorthorns or Durhams, were originally the cattle of the mild and comparatively dry counties in the north and west of England. From the fens or rich marshes of Lincoln, north, across the fertile vale of the Trent, through Yorkshire, and beyond the river Tees, the large Shorthorns lived, and were occasionally modified by importations of the Dutch or Holstein cattle long before any attempt was made to develop their good qualities by a systematic effort at breeding, and centuries before a pedigree or a herd book was thought of.

The Devon, or North Devon breed, as it is termed, is a distinct breed, that has existed from the very earliest times known in the history of the island of Great Britain, in Devonshire, and this breed, when attention began to be attracted to the improvement of cattle, was found to exist in great purity and distinctiveness in the high lands and thin soils of North Devon that border on the Bristol channel. They were therefore called North Devons to distinguish them from the Devons of the south of that county, where the purity of the original race had been tainted by intermixture with other breeds, and qualities had been obtained that were not native to the pure Devon.

The Herefords, as a breed, are not known to history as a distinctive race, and they owe their position as a breed more to the successful efforts of one man to develop the best qualities of the cattle immediately surrounding him, than either of the other two breeds just mentioned. It is true that the locality, lying as it does close to the mountains of Wales, where the original race had become somewhat modified by intermixture, the small Welsh mountain race, and the heavier cattle of the low country, modifying each other in the lands intervening between the two sections of country, and of which "debatable ground" Herefordshire forms a part—had its native breed, but it did not possess that distinctiveness, as a race, that marks the North Devon, and it was not till both form and color had been fixed by the efforts of breeders that the Hereford could be said to be a distinct breed. Still the form and properties of the Herefords are based upon the qualities of native stock of the region that Hereford represents.

The Ayrshire are likewise a breed made up by the efforts of breeders to improve the stock of the locality, and the best of the stock now known owe their position far more to the judicious and persistent efforts of breeders than to any peculiar inherent quality of race.

All of these breeds of cattle, it will be noted, are not native to the United States, but in the first place are native to Great Britain; and in the next, they have been improved and developed at a great outlay of time, capital and skill, by the persistent efforts of breeders for a long series of years. For instance the breeders of Shorthorns began to give their at



SHORTHORN COW, MISS KERR.

Winner of the first Premium at the Michigan State Fair, held at Detroit, October, 1858.

MISS KERR, red and white, bred by John Kerr, Fayette Co., Ky, calved June 1851, got by Milo (711) out of Ruby by Spice, Pomona by Fitz Roslin (2026), Clarendon by Buckingham (1755), Clara by Elector (1961).

BULL CALF, red and white, calved January 1859, out of Miss Kerr, got by Duke (443), got by Hatton (556) out of Bowkie by 4th Duke of York (10167), Cicely by Duke of Northumberland (1940), Craggs by Son of 2d Hubback (2682), Craggs from the herd of Thomas Bates, and descended from the stock of the late Mr. Maynard.

The above are owned by Thomas Briggs, Clinton, Lenawee Co., Michigan, of whom further information may be obtained.

tention to the improvement of that stock of cattle about the date of the American Revolution; the breeders of the Devons, commenced their operations at a later date, and at a time when the attention of British cattle breeders had been called to the success which had attended the efforts of the improvers of the Shorthorns and the Longhorns. The same may be said of the Herefords, although Mr. Tompkins, the breeder to whose stock the improved Herefords all trace back in the same manner as the Shorthorns do in many cases to the stock of the Collings, commenced his operations as far back as 1769. So with the Ayrshire; it is asserted by the best authority that they owe their distinctiveness as a dairy breed to crosses with Alderney stock, made at periods not of a late date, and that their whole distinctiveness and qualities as an improved breed are owing to the care and skill which has been laid out by judicious breeders, within the period that the county of Ayr has been subjected to modern systems of improvement of land.

Now the improvements in all these breeds above named, have been principally commenced and carried on by individuals, who have devoted their time, their attention, their capital, their talents, and their powers of observation to the business. The discriminative powers of the accomplished breeder are as much a part of the skill of the expert, gathered from practice, as in any other profession, and the result of their exercise is shown in the ability with which he produces animals that are not only perfect in form, but also have the power of imparting their best qualities to their progeny. Animals procured from the herds of these breeders, originally, and before the establishment of Herd Books, were accompanied by certificates of their descent, and their progeny when again raised by the purchasers from the original improvers were again considered to require certificates of breeding, to show that the animals were not of the old unimproved stock, but were really descendants of the families that had had their best and most valuable qualities so bred in that they formed hereditary points that could be transmitted. As a matter of course, there were and are at the present day in the several localities plenty of the original unimproved Durhams, Devons, Herefords and Ayrshires, or even grades that would be hard to distinguish, and which their owners are willing to impose upon community as of the pure bred improved stock, but which when used for breeding purposes soon show by the degeneracy of their stock, that they have not the powers or qualities of the thoroughbred. To guard against this, is one of the reasons why a pedigree is required, and also as a proof that the animal, having come from a line of ancestry on both side,

that were distinguished for certain physical properties, the purchaser or owner, may breed with some degree of certainty from him or her, understanding not that he has a chance, but a certainty, that his animal will yield him a progeny possessing in a greater or less degree, the very qualities he believes the highest.

Again, the science of breeding having been reduced to a system the pedigree forms a part of it, and hence when the points of pure race are laid down, the very first requirement is proof of descent. Even in the little channel islands of Jersey, Guernsey and Alderney, where the Alderneys are bred, and kept up with care, as the race most suited to the wants of the inhabitants, the first point in the scale laid down by the authorities, is pedigree, and the brand of purity of race is not affixed until that is settled satisfactorily. The cross deteriorates.

It will be seen, therefore, that pedigree is the certificate that the animal to which it may be attached is the descendant of animals which have been subjected to a series of improvement in breeding throughout the period that has intervened since the system was begun and established. Of course there are gradations in pedigree as there are in every thing else, and sometimes this gradation is caused by the high standing of the breeder, by the standing of the animals when put in competition at the great trials for premiums before competent judges, and also by directness of descent from the herds originally established by the breeders who first took up several breeds and gave them that attention which made the improved animals what they now are. For instance, animals possessing a pedigree that shows directness from the best animals that were selected and bred by the famous Thomas Bates, of Kirkleavington, England, are considered to have a first class pedigree, because it was a known and established fact that he bred, without regard to expense, only animals that in his long experience came nearest to the perfection that he sought to give the Shorthorn. The best of his stock, at his death, fell into the hands of the Earl of Ducie, who continued the system that Mr. Bates had kept up. There are other breeders of Shorthorns that have attained as high reputation, but animals that show a direct descent from animals bred by either of the two first named gentlemen, are generally looked upon as having bred into them certain high qualities of great value. The same may be said of the other breeds named above.

It will be seen by the above, therefore, that first, all the improvements of breed have originated in Great Britain, and that by consequence our breeders have resorted thither for improved stock; hence the rule adopted by

agricultural societies that if any individual shows an animal as a thoroughbred of any of the improved breeds, he must be able to show its descent from the imported animals on both sides, and then it may be questioned, whether the imported animals themselves are of high or low quality, or even whether they are really of the improved families of the race. As a general thing, however, importers will seldom go to the expense of paying the transportation of inferior animals, though it is unquestionably the fact that a good deal of that kind of business has been done. The English Herd-book, however, is now considered standard authority for the descent of the imported stock, especially when it comes from the herds of breeders of established reputation; and even on this side of the Atlantic, there are one or two instances of direct breeding which render further reference unnecessary; as, for instance, the Devon herds of Messrs. Patterson, of Baltimore, who have bred nothing but pure North Devons for a long series of years previous to the establishment of any herd-book.

The American Herd-books now afford sufficient means of reference so far as regards the descent of stock from the imported animals; but the great difficulty of judges is with regard to written pedigrees, on which many are dependent for the character of their stock. Let us look, therefore, at what a pedigree should show, and how it should read. We give two examples, one a perfect one of the highest and most unblemished description, and the other an imperfect one, with the points in which he is defective pointed out:

ORPHEUS, on side of Sire.  
Sire, Duke of Gloster, 11,382 of the English Herd Book.  
g. sire, Grand Duke, 10,284 of the same.  
g. g. sire, Cleveland Lad, 3,408 of the same.  
[We need not have gone any farther than the first named bull to have established purity of breeding of the highest kind so far as the sire was concerned.]

ORPHEUS, on side of Dam.  
1 Songstress, by Snowball, 10,846 English Herd Book,  
2 Melody, by Sir Thomas Fairfax, 5,196,  
3 Magic, by Wallace, 5,686,  
4 Unnamed cow, by Wellington, 2,824,  
5 Unnamed cow, by Marmion, 406,  
6 Daphne, by Merlin, 430,  
7 Nell Gwynne, by Layton, 365,  
8 Unnamed cow, by Favorite, 252,  
9 Unnamed cow, by Favorite, 252,  
10 Unnamed cow, by Hubback, 819,  
11 Unnamed cow, by Snowdon's bull, 612,  
12 Unnamed cow, by Marstell's bull, 912,  
13 Unnamed cow, by Masterman's bull, 442,  
14 Unnamed cow, by the Studly bull.

Here it will be seen that Songstress goes back in her dam's side without flaw for fourteen generations, which is as far back as when the system of the improvement of the Shorthorns was commenced, and that the whole series of cows, her progenitors, are sired by not only herd-book animals, but also by sires whose renown as stock getters are a portion



of the history of the Shorthorns. It is this series of sires, that gives the high grade to this pedigree. Suppose that the names of Favorite and Hubback and Sir Thomas Fairfax were stricken out, and the names of bulls as purely Shorthorn, but of less historical reputation as improvers of this breed, were put instead, it would not lessen the purity of the breeding, but every one would admit that the pedigree was not of as high a standard as it is now. This is what is meant by excellence of pedigree.

Here is a pedigree as furnished by a good breeder to a breeder in this State. Let us examine it.

#### UNCLE TOM.

A deep red bull calf, bred by himself. Calved June 21, 1884. Got by Prince Albert, dam Matilda by Highland Experiment, 79 Am. Herd Book; g. dam, Matilda 2d, by Greenholme Experiment, 2075; g. g. dam, imported Matilda by Imperial 2151; g. g. g. dam, by Son of Waraby 672; g. g. g. g. dam, by Young Comet 905; g. g. g. g. g. dam, by Son of Windsor 698; g. g. g. g. g. g. dam, by Layton 2190; g. g. g. g. g. g. g. dam, by Eclipse 1943. \* Prince Albert was bred by D. A. B. Watts, of Chillicothe, and was got by Prince Albert, a calf of imported Arabella, he by Walter, and he by Teeswater.

His dam, Lady Paxton, a grand calf of imported Blossom.

Now let us put this into shape, as it is as good as the usual run of the best pedigrees made out:

#### UNCLE TOM.

The Sire, Prince Albert, [not a herd book animal, it is therefore necessary that his whole descent should be shown up to the imported stock. How is this done? We have the mere assertion that this bull was got by a calf of imported Arabella, that had been sired by Walter, who was in his turn by Teeswater. The dam of Prince Albert was Lady Paxton, a grand calf of imported Blossom. New first, let us see where we are.

Prince Albert, sired by a son of Walter, out of imported Arabella. Walter was by a bull named Teeswater, but his dam is not mentioned. First, how is a breeder to know what either Walter or Arabella was? The breeder should have shown here of what parentage Arabella was, referring to her sire and dam by name and number in the English Herd Book. Though imported, we are not sure of her breeding, and the mere fact of importation does not make her a thoroughbred improved Shorthorn. Walter may have been thoroughbred or he may not, the pedigree does not show it, he is not referred to as a herd book animal, and neither is Teeswater, whilst their dams are never mentioned. Unless we concede every thing to the seller of the animal and maker of the pedigree, it will be seen that on the side of the sire, this pedigree is really of little value. When we turn to the dam of Prince Albert, we have the bare assertion that she was a grand daughter of imported Blossom, of what parentage was she, from whose herd did she come, was her sire a grade or a full bred bull, or was she herself thoroughbred? Then again what was the sire of the daughter of imported Blossom? And what bull was sire to Lady Paxton?

There are a great number of very doubtful points relative to the sire which really render the pedigree very imperfect, unless we take every word uttered by the seller as gospel.

The Dam, Matilda, by Highland Experiment, 79 of Am. H. B., g. dam, Matilda 2d, by Greenholme Experiment, 2,075 Am. H. B., g. g. dam, Matilda, imported, by Imperial, 2,151 Eng. Herd Book, g. g. g. dam, —, by a son of Waraby, 672, Eng. Herd Book.

This is all that was needed, except that it would have been more perfect to have stated by whom Matilda was imported.

The above pedigree, however, is about as well made out as most of those that come from many western breeders, and there are many sent out that are not near as good. Hence, when the buyers come up and have to undergo criticism, they feel indignant that any fault can be found. But the fact is, they have a vague idea that first class animals of first class descent, with perfect pedigrees, can be had at low prices, when it is demonstrated every day that the very choicest animals are both scarce and high priced.

With regard to Devon, Hereford and Ayrshire pedigrees, we have had to work much more blindly than with the Shorthorns. The publication of the Devon Herd Book has aided to render the subject somewhat clearer so far as that breed is concerned. But with the Herefords and Ayrshires, the only plan is to insist upon the seller making out the statement of descent in full, including the claimed parentage of the imported animals from which a direct line of breeding is claimed, and giving the name of the importer, with date of importation.

The breeders who go to the expense of securing well bred animals, will not be content to be put on an equality with those which are not fully bred in every point of view. More especially is this the case, when it is understood that much of the value of the improvements so much boasted of in the Shorthorns, is only kept up by careful selection and firm adherence to keeping out of well bred herds all animals of doubtful descent.

#### Magna Charta.

Amongst the celebrities in horse flesh which have attained name and station, within the past two years, none at the present moment is more conspicuous than Magna Charta, or promises more for the future. At the Grand Rapids Horse Show, he was exhibited by Mr. S. Wright, of Utica, Macomb county, and at that time, as we believe, passed into the hands of his present proprietors. These gen-

tlemen immediately prepared him for the great National Exhibition at Chicago, where he took the first prize in his class, and actually was at one time awarded the citizens' purse, but was jockeyed out of it by the shrewd manipulations of his only competitor, "Ike Cook," a very good horse in his day, but at present no more to be compared for action or future promise, to the Michigan four year old, than ancient Priam to the youthful wooer of the yellow haired queen of Sparta. Since then Magna Charta has conquered all competitors in his class at the State Fair held in Detroit, and at the great Horse Show at Kalamazoo. He has now, as we learn, gone to his winter quarters, covered with honors and premiums, and esteemed highly as the best known colt of his age in the world, and a fair and square horse of Michigan breeding and training.

At Chicago, we only got a glimpse of him in his stable, and there he impressed us most favorably as showing remarkable power, and as most wonderfully improved in appearance over what he had been when shown as a rough, rather undersized, homely and unpretending three year old that trotted past everything in his class, at the Michigan State Fair of 1883. In noticing him among the stock seen at Chicago, from the slight examination which was given then, as he was in the stable under treatment for a cold he had caught, an impression was made on us that he was rather inclined to be light on the loin and flank; this is not so, however, a better opportunity and a closer inspection at Kalamazoo, shows this horse to be both broad and full in the loin, and with a flank deep and well muscled. From the formation of his deep but not broad chest, his high thin withers, his somewhat thin neck, and clean flat legs, we should judge he had a large infusion of the thoroughbred from his dam. This is still more confirmed by his action, which is not that of the trained trotter, but is a natural action as full of peculiar grace, ease, and far reaching stride as the gallop of the best bred racer. We have seen most of the celebrated trotters of the day, but not one has ever shown, when at speed, the wondrous ease and power that this young horse seems to evince in getting over the ground. His action is the very poetry of the trot. Nearly all other trotters, in their action, seem to labor, and bring the whole body into all sorts of angularities, so that it is almost distressing to watch their efforts—even Flora Temple herself, wonder as she is, has nothing of grace in her action, it is only power—one of the most graceful of fast trotters, was Prince that exhibited with Flora last year, but he did not equal Magna Charta in this peculiarity. Magna Charta in motion, seems to play with the ground, and fairly to skim over it with the finished ease that Fanny Ellsler would use to rush with arrowy swiftness and quick grace through the measures of her most rapid dances. When urged to his speed, Magna Charta seems to make no effort to accomplish the will of his driver, he seems to lengthen his stride, and to give a better spring to his motion, but he does not lower his crest, nor lay himself to the ground, nor throw himself in the air—he seems to will to go faster, and he goes it. It is the latent power that yet remains and has not been called forth, that makes him such a favorite. It is evident he has not yet been put to the severest test, and indeed he has not got age enough for that. He is in good hands, however, that will take care of, and develop it as soon as age will permit.

It is said that the dam of Magna Charta was sired by the thoroughbred Kentucky horse, Grey Eagle; we are not prepared to admit the truth of this claim, until we have some better evidence than any we have yet seen; although it is very evident that there is much of the thoroughbred in his composition. His sire is a horse called Morgan Eagle that has stood for some years in this State, and has never distinguished himself as a stock getter of peculiar merit; at any rate none of his other colts have been heard from. Should it indeed, prove that the dam was really closely related to racing stock, it would seem to be an illustration of a principle in breeding that it might be well to experiment upon: that is, that it is from the mare's side the most of the merit of the Morgan and Black Hawk stock derive their powers of speed, and endurance. If this breeding be true, it is almost the same as that of old Black Hawk himself, which stated in a general proposition would be as follows: dam from a mare of some blood, by a thoroughbred sire; sire of Morgan blood. Morgan Eagle was not a Black Hawk, as we believe, he was a Morgan. If the dam of Magna Charta was half thoroughbred, as is said to be the case, his breeding is the same as

that of Hill's Black Hawk, whose dam was said to be an English hunting mare, half bred, and whose sire was Sherman Morgan. We point out this similarity of breeding as an illustration of a principle we have frequently advanced, of getting size combined with blood into the brood mares, and there need be little difficulty in breeding speedy roadsters, whilst we have the opportunity of using either Morgan or good Canadian sires. The first cross on the thoroughbred is generally too high mettled to make a sure trotter, though there have been many of the most excellent trotters bred from a single cross, and all the long enduring horses, the three, four and ten milers, have invariably had at least one-half of thoroughbred in their composition, and more often three quarters or seven-eighths, as Lady Suffolk, Awful, Americus, Trustee, Kemble Jackson, Pocahontas, and a number of others.

It is not to be supposed that every man will have the good fortune to have a colt that will trot 2:25 by breeding in this way, but the chances are more in his favor than by any other method, and it may be that he can prove in a satisfactory manner, that perfection can be regularly approximated by this method, which by chance has produced some of the best horses on record.

#### Reply of One of the Committee on Devons.

EDITOR MICHIGAN FARMER.—In your article headed "State Fair," published in the FARMER of the 22d instant, you say "One of the difficulties that Devon breeders have to contend with is the difficulty of procuring competent judges of this kind of stock. Nearly every man who knows the quality and points of Devons is a breeder or competitor; all the rest have their eyes filled up with the portly form and square build of the Durhams, and they constantly compare the one breed with the other, instead of the points of the Devon with the stock itself." As one of the committee on Devons, I think you do us great injustice in the passage quoted above.

You were probably induced to write that passage from the fact that a portion of the owners of Devon stock on exhibition at the fair, had entered a protest against the awards made by the Viewing Committee, and by representations most probably made by some of them to you.

The committee may have done wrong in some of their awards, and what committees do not. But one thing I can say, we had no axes to grind, and in no case in our decisions did we think of the "square build of the Durhams," as compared with the Devons, your opinion to the contrary notwithstanding. A simple statement of the facts in regard to the purity blood, as presented to the Viewing Committee, and on which we relied in making our awards, may place the case in a different light from what in all probability it has heretofore been represented to you.

Before we entered upon our duties as a Viewing Committee, Mr. Butterfield, of Macomb county, handed me a statement, from a Mr. Hamlin, of Erie County, New York, stating that he had sold some years ago to Mr. Crippen, of Coldwater, in Branch county of this State, a few head (I don't recollect the number) of Devon cattle, and that in that purchase was one heifer or cow by the name of Mary Williams, (I think that is the name,) which was a Grade, and that he so informed Mr. Crippen, and that he sold her for less than what he got for the others that he sold Mr. Crippen, from the fact of her being a Grade. Mr. Butterfield contended that that cow was on exhibition as a pure blood Devon, and that, if not all, of the stock exhibited by her owner could be traced back to her, and consequently they were not pure blood. The statement of Mr. Hamlin, I believe, was verified by others. As an offset to the statement of Mr. Hamlin, one of the exhibitors (I don't know which for they were all strangers to me excepting Mr. Butterfield) handed me another statement verified by affidavit from Mr. Crippen acknowledging all that Mr. Hamlin had stated in regard to the purchase of Mary Williams, but that he had sold her to another person, I have forgotten the name, and that she was not on exhibition. Mr. Butterfield was still dissatisfied, and refused to exhibit his stock on the ground that Mary Williams was there to be exhibited with her progeny. I heard of no complaint from any at the time but Mr. Butterfield; others may have complained but if they did I at least knew nothing of it.

With this simple statement of facts, I am willing to let others judge, with what degree of justice those gentlemen who have signed the protests, could charge the committee with "not making purity of blood a test of merit, as animals known to contain blood foreign to the Devon race, received prizes, while animals of known purity of blood were passed by unnoticed."

"Knowing the above to be true," &c. If

they had said false, they would have made one truthful statement in their protest; as it is, they have not made one.

Yours, truly,

J. H. BUTTON.

Farmington, Oct. 24th, 1889.

#### On Sheep Raising.

The farmers should raise that kind of grain and keep that kind of stock, that will produce the greatest profit from the labor bestowed upon it, or the food consumed by it. This may be found in the first chapter of the *Farmers' Economy*, first verse.

We would like to have the farmers of Michigan write more upon this subject; for Michigan is destined yet to be ranked with the first States in the Union, for mutton and wool-growing. According to our text, it is for our interest to raise and keep that kind of sheep that will produce the greatest amount of profit, from a given quantity of food consumed by them. We will admit as a general principle, all animals of like kind consume food according to weight of carcass. I think there has ever existed an immutable law in the formation of animals, that should be strictly observed, especially in growing for pork, beef, or mutton. Such animals as are formed with flat ribs, narrow breast and hips, (for such is the case with fine-wooled sheep,) will actually consume more food, without producing meat or tallow, than a much heavier animal, with a barrel ribbed, round body, and broad hips and chest; all indicating superior vitality, and digestive powers; securing health and hardiness. From the last two years of my experience on sheep-raising, I prefer the Leicestershire. Two years ago, I was induced by a friend to try the Leicestershire. Accordingly, I purchased in Wayne county, New York, eighty-one Leicester lambs. After getting them home, I sold thirty to my neighbors, leaving me fifty-one to winter. To satisfy myself which would yield the most profit, I have tried experiments both in wintering and summering. I have, until two years past, stocked my farm with Spanish Merinoes. In 1887, I wintered 150 Spanish Merinoes, and 51 Leicester lambs. Last winter, (1889), 184 Merinoes, and 60 Leicester. The Merinoes were divided in two flocks. The Leicesters were wintered adjoining one flock of Merinoes. Both flocks were wintered and fared precisely alike, eating from racks that divided the yard; one flock on one side, and the other occupying the other side. Each flock when fed grain shared equal quantity to the head.

In the spring, when turned to pasture, the Merinoes looked like grey hounds, compared to the Leicester. In 1888, I sold my fine wool for 35 cents per pound; my coarse for 40 cents per pound. The coarse averaged 53 cents per head more than the fine. This year (1889) I sold my fine wool for 47 cents per pound; my coarse at 38 cents per pound, my coarse averaging thirteen cents per head more than the fine; my fine wool averaging a trifle over four pound per head. My neighbor last season sheared ten yearling Leicester ewes, which I sold him. He sold the wool for 30 cents per pound, amounting to \$24.32. Objection is made by some to the Leicester, because their wool is coarse, and does not bring as much per pound in market as the fine. This we will admit. But a clip of Leicester wool from the same number of head of fine wool, if kept alike, will amount to as much or more money than the fine. The Leicesters shearing enough more weight of wool to make up the difference in the price. I go for profit, and not for the name of raising the finest wool.

The time has already come, when there is as much real profit in raising mutton as in raising wool. The ready facilities for taking fat sheep to the seaboard markets, by the great thoroughfares, with the high price of mutton, have stimulated an enterprise for a breed of sheep which are more ready fatters, and of a heavier carcass than can be made from fine woolled sheep. A Leicester wether, when well fattened, will usually dress from 70 to 100 pounds of mutton, which is as heavy as the live weight of fine wool sheep. I have now Leicester lambs six months old weighing from 80 to 105 pounds, without any extra care, which is nearly double the weight of my Spanish lambs of the same age, faring alike. In short, I have come to the conclusion that the mutton sheep are the most profitable sheep to raise. I think the expense is no more to keep a mutton sheep weighing 120 pounds than a fine wool weighing 100 pounds. The mutton sheep, being more hardy, can stand the cold winters better. As a general rule, the finer the fleece, the tenderer the sheep.

Wheat with us is middling good, and brings a fair price, \$1 per bushel. Editor's pay sure.

E. T. BRYAN.

Marango, Calhoun Co., Mich., Oct. 20th, 1889.

#### Taming the Honey Bee.

Bee-keeping has been called "the poetry of rural economy;" and it would be generally so considered were it not for a sharp little weapon which this insect keeps concealed about his person, and with which he sometimes turns the poetry into a kind of sorry prose. It is obvious, however, that the Bee was designed for the service and comfort of the human family, and is as much a part of the Grand Plan, which subordinates every thing in the animal and material kingdoms to our use, development and purpose, as is the horse or cow and ox. Is it a matter of surprise that it has not before been tamed, or domesticated, when we think of the rude manner in which it has been kept, and the little knowledge which we have had of its habits until quite recently? Why, the true method of taming and subduing the horse has been reserved for this day and for an obscure individual.

We lay it down as a fully verified truth in natural history, that the honey-bee is as capable of being tamed, domesticated and brought into complete subjection to man, as any of the domestic animals which we handle daily with entire safety. We are well aware that many persons whose dread of a bee-sting is so great as to cause them to flee as for life when a bee approaches, will scarcely credit this, or believe, that with the movable frames, any desired operation may be performed without the least danger. No more astonishment could possibly be expressed, than we have seen in the countenances, and heard in the exclamations of old bee-keepers, when they saw for the first time the hive opened and the frames, one after another, lifted out, covered with bees, and replaced, exhibiting the queen, dividing the swarm into two or more parts, transferring the whole—bees, combs and all—to a new hive, without receiving a single sting, or enraging the bees in the least. And this done, not only with a particular hive, but with any swarm in the apiary in the Langstroth hive. Perhaps we have made a similar statement before, but we repeat it hoping thereby to induce every one, be he farmer or mechanic, minister, doctor, or lawyer—who is fond of the delicious nectar which these wonderful insects are seemingly glad to store up for his use, when treated humanely—to add to their means of comfort and pleasure, and to their sources of income, a few stocks of bees.

Rev. L. L. Langstroth was the first to propose and clearly state the great controlling principles on which the system of domestication of the honey-bee is founded. They are embraced in three propositions:

1. "A honey-bee when filled with honey never volunteers an attack, but acts solely on the defensive.

2. Bees cannot under any circumstances resist the temptation to fill themselves with liquid sweets.

3. Bees when frightened immediately fill themselves with honey from their combs."

In elucidation of these principles he says: "This law of the honied tribe is so universal, that a stone might as soon be expected to rise into the air without any propelling power, as a bee well filled with honey to offer to sting, unless crushed or injured by some direct assault. The man who first attempted to hive a swarm of bees, must have been agreeably surprised at the ease with which he was able to accomplish the feat; for it is wisely ordered that bees when intending to swarm, should fill their honey bags to their utmost capacity. They are thus so peaceful that they can be easily secured by man, besides having materials for commencing operations immediately in their new habitation, and being in no danger of starving if several stormy days should follow their emigration."

The hiving of bees might always be conducted without risk, if there were not occasionally some improvident or unfortunate ones, who, coming forth without the soothing supply, are filled instead with the bitterest hate against any one daring to meddle with them. It luckily happens, however, that there are few such that leave with the swarm.

If as soon as the hive is opened, the exposed bees are gently sprinkled with water sweetened with sugar, they will help themselves with great eagerness, and in a few moments will be perfectly under control. Bees thus managed are always glad to see visitors, for they expect at every call to receive a suitable peace-offering. The greatest objection to the use of sweetened water, is the greediness of bees from other hives, who, when there is a scarcity of honey in the fields, will often surround the apiarian as soon as he presents himself with his watering pot, and attempt to force their way into any hive he may open, to steal if possible a portion of its treasures."

The third principle laid down gives almost unlimited control over the bees. By using a little smoke from a roll of burning cotton cloth, or from spunk, blown in at the entrance, the strongest and fiercest swarm may be completely subdued. Not knowing what is to befall them, they at once fill their honey bags to the utmost, with honey from the combs, and as a consequence, both from the alarm and the surfeit, they are not disposed to offer any resistance. We must say, however, that the practice of alarming them is not, in our judgment, a good one, and should not be resorted to except when fears are entertained that the sweetened water will not answer, or when the keeper is too timid to undertake to open the hive until the bees are subdued.

Burr Oak.

CHAS. BETTS.



## The Garden & Orchard.

### Horticultural Arrangements at the Recent State Fair.

Under the discouraging circumstances of last year, with the prestige of the Society at a low ebb, and with an almost total failure of the fruit crop, it was resolved to merge Floral Hall and the Hall of Fine Arts in one. The experiment succeeded so well at that time that the business committee were induced to repeat the experiment at the recent fair; merely enlarging the hall by the addition of a wing on each side, for the accommodation of exhibitors in the Fine Arts.

By this arrangement, the continuous tables heretofore furnished for the display of fruits, which gave to visitors, as well as to persons in charge, opportunity for a glance over the whole, were cut up into detached portions, so placed as to render it difficult for those in charge of the fruits to prevent the plundering of specimens; while the full effect of what was, really, a superior exhibition of fruits, was in a measure lost. During the first day, it became obvious that the space provided was inadequate to the display of the fruits to be exhibited, and additional shelf-room was hastily put up; but, even with this, the space was found insufficient, and was finally provided for the remainder in Agricultural Hall.

With the exception of the arrangements for fruit, the Hall was beautifully arranged and fitted up, and was, deservedly, the source of great attraction throughout the exhibition. It could not but be observed, however, that the wings, recently added to the building, were a source of great annoyance to all concerned, creating, as they did, a sort of cross or counter current, in the animated tide which was constantly flowing through the building. Indeed, it may be considered as a settled fact, that no method of arrangement will be satisfactory, for such a purpose, that does not admit of a direct and unbroken thoroughfare, with no opportunity for a dereliction of the throng while passing through.—The attempt to combine the three interests, (Fine Arts, Flowers and Fruits,) in one hall, can hardly be viewed otherwise than as a failure.

It cannot, reasonably, be expected that the Horticultural interests of the State will long consent to be thus dwarfed, by being kept in subservience to other interests. That it is really so, is none the less true from the probable fact that the Society did not so intend it. This truth has been, gradually, forcing itself upon the horticultural mind of our State, for several years past; and the developments of the recent fair, seem to have brought the feeling to something like a culmination. This feeling seems not, by any means to be confined to the small number of professional horticulturists of the State, but it also pervades the far more numerous class of amateurs and farmers, who, in connection with other pursuits, take an interest in the cultivation and improvement of the orchard and garden. It is believed that these interests, if estimated merely by the amount of capital invested, will be found second to no other single interest, within the range of the objects of the Society; while, at the same time, it is equally true, that in no other department is the amount annually sacrificed from lack of proper information so great as in this.

Notwithstanding these truths, the tendency seems to have been, for some time past, to a diminution of the amount of premiums in this department, as compared with others. This has been attributed less to any disposition to really neglect or ignore this department, than to the fact, that the direct interests of nearly all those who directly control the action of the Society, lead them in other directions.—Looking at the matter in this light, it was thought best, on the part of those interested, to present the whole matter, at the meeting for the election of officers, and urge the placing of persons upon the Executive Committee, who might be considered as especially representing this interest. This was accordingly done. In the report of the Nominating Committee, this feeling seems to have been considered; but the only person nominated, who seems to have been intended as a representative of this interest, was so situated with respect to the occurring vacancies, and, also, to the officers holding over, that he felt obliged to decline. These circumstances could hardly have failed to be apparent to the Nominating Committee; hence a suspicion arises, that this action may have been a subterfuge, adopted as a means of putting a quietus upon a troublesome matter. It is hoped, however, that such suspicions may prove to be destitute of real foundation, and that the calling of public attention, and that of the officers of the Society, to the subject, will result

in securing the needed reforms. It is, certainly, not requiring too much to ask that, besides a due proportion of the premiums, these classes shall, in the preparations for the annual fairs, have the benefit of the same careful consideration that shall be devoted to others; and that, also by persons properly qualified to appreciate their peculiar wants.—What some of these peculiar wants are, will be more fully noticed in a subsequent communication.

T. T. LYON.

Plymouth, October 22d, 1880.

### The Science of Gardening.

#### THE STEM AND BRANCHES.

Although every member of the vegetable form, from the minutest root to the most fragile spray, has its epidermis, cellular integument, bark, woody fibre, and medullary matter, yet as these are most apparent in the stem and branches, they can be commented upon most readily in this chapter, devoted to the consideration of those vegetable members.

The first of these, the *epidermis*, is analogous to the human cuticle, or scarf skin, being the external envelope of the whole surface. It is commonly transparent and smooth—sometimes hairy; in other instances hard and rugged, occasionally so abounding with silica, or flint, as to be employed as a polisher for wood and even brass. In every instance it is a network of fibres, the meshes of which are filled with a fine membrane. The epidermis appears to be designed as a preservative from the injurious effects of the atmosphere, to regulate the amount of gaseous matter and moisture respired, and as a shield from the attacks of animals, &c. It is certainly devoid of sensation. The texture of the membrane between the meshes varies much in different species of plants. In very succulent plants it is so contrived that it readily allows the absorption of moisture, but prevents perspiration. Such plants are, consequently, well qualified to inhabit hot climates and dry soils. Neither is it at all impossible that it possesses the quality of allowing the passage of some gases, and rejecting others, as the bladder of animals permits water to pass through its texture, but is impervious to alcohol. In old trees it cracks, and in many cases becomes obliterated, the dead layers of bark performing its offices. Its growth is slower than that of other parts, and its power of expansion, though great, occasionally cannot equal the rapid enlargement of the part it encloses and defends. This is very frequently the case with the stem and branches of the cherry; the tree is then said by gardeners to be hide-bound, and is relieved by longitudinal incisions. It is still more apparent in the fruit of the cherry and plum: when rain falls abundantly during their state of ripeness, their pulp swells so rapidly, that in an hour or two the epidermis of every ripe drupe upon a tree will be cracked.

Gardeners are very prone to scrape with no gentle hand the bark of their fruit trees; whereas every care should be taken not to wound its surface unnecessarily, and never to reduce its thickness until all danger of severe frost is passed.

The epidermis regulates the evaporation from a plant, and preserves it in some degree from the detrimental sudden changes of temperature to which our climate is liable. The Birch (*Betula alba*), has more films of epidermis than any other European tree; and it ascends to greater heights in the Alps, and approaches nearer to the frozen zone than other trees of the same climates.

It is quite certain that stems and branches can imbibe nourishment through their epidermis. If a branch be cut off, and a wetted towel be wrapped round the bark, yet without either touching the cut end or the leaves, that branch will retain its foliage verdant much longer than another branch similarly cut off, but not enfolded by a wetted towel. So all gardeners know, that enclosing the stems of newly-transplanted trees with moss or hay bands, and keeping these moist, is an efficient mode of enabling them to bear the removal. A branch or a whole tree, may be killed by painting over its entire epidermis with gas tar. Showing either that the admission and emission of gases and moisture being prevented, or that creosote or other poisonous matter is absorbed from the tar, death is the consequence.

We could give many similar results of experience, but will only add further that Mr. Hales states, as the result of many experiments, "that the air enters very slowly at the back (bark?) of young shoots and branches, but much more freely through old bark; and in different kinds of trees it has very different degrees of more or less free entrance."

Knowing these facts, and knowing also the benefit a tree derives from keeping its epidermis freed from lichens, we have never doubted

that its clean and healthy state is of as much importance to a plant as is a clean and healthy skin to an animal.

Some phytologists, however, have viewed the epidermis in a light altogether different, and have regarded it as being the effect of mere accident or position,—that is, as being nothing more than a scurf formed on the exterior of the pulpy parenchyma, and indurated by the action of the air. This was the opinion of Grew and Malpighi, who, professing to be dissatisfied with the analogy that has generally been thought to exist between the epidermis of the animal and the vegetable, contend that the latter is nothing more than the indurated surface of the parenchyma, from which it differs only in such circumstances as are occasioned by position. If it is more or less transparent—if it is tougher or firmer in its texture than the parenchyma or any of its parts, it is only because it is exposed constantly to the influence of light and air, and to the contact of such bodies as float in the atmosphere; but it is not to be regarded as constituting a distinct organ or membrane, or as exhibiting any proof of its being analogous to the epidermis of animals.

Yet, if it is true that the epidermis is nothing more than the pellicle formed on the external surface of the parenchyma, indurated by the action of the air, then it will follow that an epidermis can never be completely formed till such time as it has been exposed to that action. But it is known that the epidermis exists in a state of complete perfection in cases where it could not possibly be affected by the external air. If you take a rose-bud, or bud of any flower, before it expands, and strip it of its external covering, you will find that the petals and other enclosed parts of the fructification are as completely furnished with their epidermis as any other parts of the plant, and yet they have never been exposed to the action of the air. The same may be said of the epidermis of the seed while yet in the seed-vessel, or of the root, or of the Paper Birch, which still continues to form and to detach itself, even though defended from the action of the air by the exterior layers.

Because the wood and the bark "differ essentially from each other, both in their composition and characters," Liebig concludes that "the inorganic ingredients of the bark are obviously inorganic substances, expelled by the living organism," and "are in so far true excrements, that they arise from living plants and play no further part in their vital functions; they may even be removed from them without thereby endangering their existence. It is known that certain trees throw off annually their barks: this circumstance, viewed in its proper light, shows that, during the formation of certain products formed by the vital processes, materials arise which are incapable of experiencing a further change."

This conclusion is certainly illogical; for, from similar premises it might be concluded that the shell of the lobster and of other crustaceæ are "true excrements;" and, moreover, it is a conclusion refuted by all experiments upon its functions, and by the fact, that to denude a plant of its epidermis, and to keep it so denuded, is a treatment certainly followed by disease and decay.—J., in *Cottage Gardener*.

### HORTICULTURAL NOTES.

#### Seedling Scarlet Geraniums.

An experienced florist says the best way to treat seedling scarlet geraniums that have not flowered, is, to take a few cuttings of each in September, and to let the old plants be killed by the frost.—Besides saving room, the plants from the cuttings will flower a month earlier than the old plants and as one of a thousand of such seedlings is not better than the parents, they are not worth the trouble of wintering.

#### Lilies.

The various kinds of *Lilium Japonicum* and of *Lilium lancifolium* are seldom seen out of the greenhouse, and yet says the *Gardener's Monthly*, "they are quite hardy, and perfect their beautiful and fragrant blossoms better in the open border than when under pot culture."

#### Asparagus Beds.

Asparagus beds should now be cleared and prepared for winter and spring. The stems of the plants should all be cut off close to the ground and the bed covered with earth, old manure, and scrapings of the alleys. This should be loose and friable, as it thus serves for a protection from the frost, and also allows the bed to be raked free from it in early spring, when the roots want to be brought within the influence of the sun's rays at as early a date as possible, so that the first crop may be had soon.

**Effects of Artificial Light on Vegetation.**  
A correspondent of the *Manchester Guardian* says:—

"Twenty years ago I read in Humboldt's works about some experiments he had made with artificial light on vegetation. He planted some peas in a box, and placed some in a room, and when grown up they were of a yellow color. He also placed some in a room where daylight was entire-

ly excluded, and suspended a lamp so that the rays of light from it would fall upon them; they grew up as green as though they had been exposed to sunlight. This year I have tried experiments on the same subject. I planted vegetables in a place where daylight could not penetrate, over which I suspended a paraffin oil lamp, with a reflector to throw the light upon the plants. They have grown up a beautiful dark green. I have also lighted a greenhouse with lamps every night, and find that it not only increases vegetation, but gives a beautiful deep tinge to the plants."

Choice Verbenas and Geraniums are often lost during the Winter for want of proper care. The old roots are taken up in Autumn, potted and set away in the cellar only to come out in the Spring thoroughly dried up, or, if the cellar is moist, they have become moldy and decayed. It has been recommended to take them from the ground, and hang them in the cellar for the Winter. They will sometimes, but rarely, recover when set out the following Spring. They are best kept in a greenhouse or pit, but, if one has no such conveniences, he may pot the layers, or recent cuttings, just before frost, and either keep them on the parlor shelf, or in the window, where they will grow and bloom toward Spring; or he may set the pots in a warm, dry cellar, after the plants have become well rooted, and let them go through the Winter in a dormant state. The earth will need examining and watering occasionally, or the roots will become so dry that it is difficult to resuscitate them in the Spring. Of course the foliage drops off, and perhaps only the root survives; but that is sufficient for the purpose intended.

### Hot and Greenhouse.

If there be any tender plants yet growing in the open border that it is desirable to repot and keep in good order through the winter, no time should be lost in taking them up. Such plants are frequently lost or injured by bad after-treatment. Some few of the leaves should be taken off at the time of lifting, and also some of the more delicate and weaker shoots. The object is to preserve every leaf and shoot entire that can be kept without wilting. After some have been taken off, if afterwards it appears that some are yet likely to wither, keep taking off till the proper balance has been arrived at. It is a good practice, with the aforesaid object in view, to set the plants for a few days after potting in a cool and humid shed.

Many re-pot, at this season, many things they are desirous to see grow freely; but, except in rare instances, there is little advantage gained; while there is much risk of losing the plant by what gardeners call "over-potting," or the soil souring, through a deficiency of roots to keep the matter healthy for the plant. Under-potting is always the safest side to err on.

There have often been questions started as to whether morning or evening is the best time to water plants, and many good reasons have been given on both sides. Our practice is to water in the morning in winter, and in the afternoon in summer, and the arrangement always seems satisfactory to the plants themselves. We can give no directions as to the frequency that hot or greenhouses should be syringed. A closely glazed house, that admits of little loss in the way of atmospheric humidity, may not need it once a week. A dryer house will require it oftener. A moist atmosphere is favorable to growth, while a dry one is favorable to flower and fruit. The application must be made to individual cases.

Giving air, also, is a mooted point. In a mixed collection of greenhouse plants, 45 deg. is a good point to aim at, allowing 10 deg. for a rise under a warm sun. When the glass indicates a disposition to rise above 55 deg., top-air may be given. It is good to syringe about the time air is given to the house, as it makes up for some of the moisture which then escapes.

For winter flowering, it is a good idea to keep an eye to those things which are near their natural season of blooming, instead of the more hazardous one of forcing things on that ought not naturally to bloom for months afterwards. We have the natural system pretty well recognized as the correct principle in landscape-gardening, and it might as well be introduced into this department also. Roses, of course, cannot be dispensed with; but even here the free blooming Tea and China Roses are infinitely preferable to the Mosses and perpetuals often attempted. Roses intended for blooming, may be pruned in now about one-third of their strong shoots, and have their weaker ones cut out. As soon as the buds show an inclination to burst, the plants may be repotted in a rich loamy soil in well drained pots. Oxalis make beautiful objects in the spring early, if potted now. A rich sandy soil suits them well.—Three or four bulbs are enough for one pot. They do not do well too thick together. O. Bowei, O. flava, and O. versicolor are well-known and popular species.

All succulents may be kept in the driest part of the house, and get little water through the winter. The flat-leaved or Epiphyllum section is an exception. E. truncatum blooms through the latter part of the winter, and so must be kept growing.—*Gardener's Monthly*.

### Garden Work for November.

**Winter Spinach.**—See that the winter spinach is thoroughly free from grass and weeds. If it has been planted in rows, which is the best plan, the plants should not be closer to each other than four inches.

**Strawberry Beds.**—The strawberry beds should have been cleared during October, but if this has been neglected—we hope unavoidably—manure them well at once between the rows. Fork it up and cover the beds with leaves and woods mould, which are preferable to straw.

**Asparagus Beds.**—If these have not already been put in order for the winter, cut down the haulm, free the beds from grass and weeds, collect them into heaps and burn them. Next, manure the rows and fork all in. Finish off by giving the beds a good broadcasting of salt and ashes.

**Rhubarb or Pie Plant.**—The seed of this very desirable plant may be sown in a warm border during this month in preference to sowing them in the spring. If the winter is not of unusual severity, fall seeding for this plant generally succeeds best.

**Celery.**—Earth up celery.

**Endives.**—Earth up endives for bleaching.

**Winter Cabbages.**—Take up these and store them away. Roof them over with a light covering of corn stalks to protect them during the winter.

**Small Salading.**—Sow small salading in frames for winter use.

**Cuttings of Gooseberries and Currants.**—Cuttings of these fruits will strike well at this season, if planted in a warm border and kept slightly shaded for a few days. Plant the cuttings in rows 18 inches apart and six inches asunder in the rows. All that take root should be suffered to remain in the bed until the following autumn, when they are to be planted out wherever they are to stand permanently.

**Raspberries.**—Raspberry roots may be planted still during the open weather.

**Tomato Vines.**—If the late tomatoes have not been effected by frost, the green fruit may be matured by taking up the vines and hanging them under cover in a dry and moderately warm place. When it is desirable to use them, take off the green tomatoes and place them on a shelf or window sill inside the house, where the sun may act upon them. They will soon ripen, and the season for fresh tomatoes may be extended by this process for more than a month. It is a common practice among the gardeners in France.

**Pruning Fruit Trees.**—Fruit trees may be pruned either during this month or early in February. Whichever season may be chosen, be particular in making a smooth cut close to the limb; and where large limbs have been taken off, cover the wound with a mixture composed of equal parts of beeswax, rosin and tallow, over which bind some stiff brown paper.

**Trenching.**—If the soil of the garden is of a stiff clay, haul over it a heavy dressing of sand, manure it well and trench all in deeply, leaving the ground rough during the winter.—*Rural Register*.

### Origin of the Isabella Grape.

The grape is a native, and for the last forty years has been known to pomologists as the "Isabella Grape," in honor of Miss Isabella Gibbs, of Dorchester, S. C., who took it to the north, and gave it to William Prince, of Flushing Gardens, on Long Island, near the city of New York. I found the grape in possession of the Cherokee Indians at the settlement of this county, and gave the vine now in possession of Mr. G. W. Stanfield, of Sugartown Fork, to one of my neighbors, who, for five years, trained it on a scaffold, where it bore finely for the first two years, after which the vine was attacked by a disease which vintners know under the name of "mildew," causing the fruit to blight when nearly grown, after which the vine never had a sound cluster of grapes, till after a small balm tree—Balm of Gilead—began to throw its branches over the section of the scaffold next to it, when we made the discovery, that to the extent of the droppings of the dew from the leaves of the balm tree, the clusters of grapes ripened perfectly sound, and of a highly aromatic flavor—the grapes on all other parts of the scaffold rotted, every one—and the same thing transpired for two years, when I advised my neighbor to train his vine upon the tree; since which it is twenty-five years, and in all that time has never failed to yield a weighty load to its branches of delicious grapes.

S. McDOWELL.

Franklin, N. C., Sept. 1880



## FOREIGN AGRICULTURE.

## Notes of Foreign Travel.

FROM THE SCOTCH JOURNAL OF AGRICULTURE.

[Continued from page 324.]

Although many have been accustomed to conceive of the condition of Flemish agriculture as that which leaves but little to be desired, possessing all the requirements of good and careful culture, yet such is not altogether the case. Long accustomed to carry out plans of procedure which their forefathers did before them, many of the farmers of the province evince but little desire to amend them, however vicious they may be; and it is doubtless the case that some of their practices are bad enough. It is gratifying, however, to learn that there is a decided tendency to abandon several of the oldest and worst (*plus vieux procedes*) of their plans of operation. While, however, feeling surprise at the comparative slowness with which farmers avail themselves of the aids of science—as of chemistry and mechanics—we must recollect that there is a peculiarity in the system of Flemish husbandry which in great measure prevents the rapid increase of the aids which agriculture has drawn to herself in a country such as our own. The peculiarity to which we here allude is the extensive employment of human labor. With a numerous population and a poor soil (*un sol ingrat*) the perfection in agriculture which has undoubtedly been attained, and the triumphs over natural obstacles which have been won, have been bought only by labor incessant, and the most lavish expenditure of manure.—The ingenious methods adopted to increase the fertility of the soil, and its careful repeated workings, and the weeding of the crops, have given the system more of the peculiarities of the garden than of the farm, using the latter term in its English signification. But this garden cultivation is only obtained by garden labor—labor not attainable in a country like our own. This condition of affairs is also greatly aided by the small extent of the occupations. The same necessity there does not exist—at least to the farmers it does not seem to exist—for the employment of those aids which the farmers of England call forth with their large occupations, and their scanty supply of human labor. Agriculture in Flanders does not present the same imposing aspect which we find it assume in this country. No fields of mighty sweep, no steadings like little towns, no steam engine chimneys send the black smoke over the green fields. No complicated machinery in field or steading meets the eye of the tourist. All is of the simplest character; and little necessity exists, as with us, to supply the insufficiency of human arms with the more powerful and untiring aid of mechanism. The condition of rural affairs resembles that of our manufactures in ancient times, where the distaff or the spinning-wheels were worked at the family firesides, and during the intervals of rural labor. But although it does at present seem likely that a change similar to that which in this country concentrated manufacturing labor in gigantic factories, will take place in Flanders, and, increasing the extent of the farms, necessitate much of the manufacturing-like care and economy which characterizes our English agriculture; still the most advanced agriculturists of Flanders hold that, by abandoning the practice of ancient usage, and by availing themselves more of the aids of mechanism, a very great improvement in the condition of agriculture generally would result, and this without materially changing what we may call the agricultural economy of the country.

Machines of various kinds are also coming fast into use in the province. Most of the farms are already provided with straw-cutters, root-cutters, corn and oil-cake crushers, and improved ploughs. Threshing-machines are coming rapidly into use among the large farmers, but they are too expensive for the little cultivators. It is to be hoped that the introduction of portable machines will become general, and afford to this class the means of having their corn threshed at little expense. The economy of time and money resulting from the use of these machines will necessarily be beneficial to the other branches of rural economy. Manufactures of agricultural machines are on the increase; those of MM. Persynn and Le Clerc, at Bruges, may be noticed here as putting out excellent examples of machines, which we have examined with much pleasure.

Although the advantages of drainage are beginning to be understood in the province, and its high value conceded by nearly all, still its progress is very slow. There, as here, the farmers are slow to put themselves to an expense which does not seem to offer immediate returns. Drainage will not be generally adopted till the proprietors of large estates show the first example. There are in the province fifteen places where they make drain tiles. The machines, for the most part, belong to the state, or to the province; they furnish tiles of good quality. A good move-

ment has been recently commenced by some of the agricultural societies, proposing to offer prizes to the proprietors and farmers who shall carry out the best and most extended system of drainage.

Of the industrial pursuits connected with agriculture in the province, we may here note that there are no fewer than fifty breweries and sixty distilleries. The activity of these establishments exercises a very favorable influence upon agriculture; for the abundance of nourishing food produced by their operations enables a large number of cattle to be fed, and by consequence a large produce of manure to be yielded. Many of the proprietors of the distilleries keep large numbers of cattle to feed with the produce. One in Bruges is said to maintain two hundred head.

The oil-mills form a very important part of the agricultural industry of Flanders. Almost every village has an oil-mill either attached to an ordinary corn-mill, or forming a mill devoted entirely to the business. These mills are generally worked by wind power, although in the neighborhood of large towns, as that of Bruges, there are mills worked on an extensive scale by water and steam. The owner of the mills offers every inducement to the grower of the seed to convert it into a marketable article, either by purchasing the seed at its market value, by exchanging it for oil-meal or oil-cake, or, lastly, by crushing the seed at a stated price, returning both the oil and the cake, or selling the former to account of the grower. The process of crushing the seed to obtain the oil and the cake is a very simple one. The seed is, in the first place, bruised or converted into meal by means exactly similar to those employed in bone-crushing, a large circular stone, 5 to 5½ feet in diameter, and 14 inches wide or thick in the edge, being used, which has a double motion—one on its own axis, and another round a circular table on which lies the seed to be crushed. A shield revolves with the crushing-stone, the duty of which is to move the meal from the outside of the table towards its centre, so that the stone will always keep passing over it. The meal, when thoroughly prepared by this crushing process, is heated in a circular vessel, placed upon an iron plate, heated by a small furnace, in the interior of which a stirrer has a slow revolving movement, the effect of which is to keep the meal in motion while being heated, much in the same manner as if it were kept constantly mixed by the hand. By the side of the furnace two funnel-shaped receptacles are placed. These are without bottom, and the width of the lower aperture is equal to the width of the oil-cake which is to be made, or thereabouts. Two long flannel bags are suspended beneath the apertures, and are filled by throwing in the meal from the heating vessel into the funnel-shaped receptacles. The bags are then taken and spread evenly out on one end of a piece of thick felted material, the length of which is rather more than double that of the bag containing the meal. When this is spread evenly out, the thickness is somewhere about an inch and a half. In other cases the thickness is much greater than this. The piece of felted material, which is ribbed or barred transversely on its surface, is then doubled over, the bag containing the meal being thus placed between two surfaces. The centre part of the felted envelope, which we may here term it, is provided at the outside with a handle by which it can be lifted up and dropped into its place in the dressing-mill.

This part of the apparatus, like the rest, is of great simplicity. Imagine a strongly constructed table, in the centre of which a narrow "well" is made, running along its extreme length. In this a series of wedges or blocks of wood are placed, and in the centre a larger wedge, which is driven down by a heavy pile, or long piece of timber, which has a reciprocating up-and-down motion given to it by simple mechanism. At each end of this "well" above described, a felted envelope is placed containing its bag of meal. The thickness of these is such as only to allow of the thin edge of the central wedge being admitted between the blocks of wood which press upon the felted envelopes. The machinery is then put in motion, and the beam gives a succession of blows to the wedge, which in a few minutes is driven hard up till its upper surface is flush, or nearly so, with the surface of the table. The enormous pressure to which the envelopes and their contained bags of meal are subjected, expresses their oil, which passes through the lower part of the "well" to vessels placed underneath to receive it. The central wedge is removed or started from its position in which it is so firmly fixed, by a second beam giving a few blows to a second wedge, but the edges of which are cut in a reverse direction. As this passes down, the blocks of wood slide up the inclined sides of the wedge, and allow the central wedge to start. The felted envelopes are then removed, and the residue of the meal taken out of the bags, which presents the well known appearance of oil-cakes, their ribbed surfaces being produced by the uneven

surface of the envelopes, to which we have before alluded. Their rough edges are then trimmed up by passing them along a knife fixed near the furnace which heats the meal. They are now ready for use. The meal is sometimes put through two processes—the first extracting a certain quantity of oil, the second finishing the cake. By the addition of this extra labor, comparatively little in amount, a larger percentage of oil is obtained, or, if necessary, the cake may be made richer in oil by stopping the "expression" after the first process. A ton of seed can be reduced to oil and cake in a day, by an expenditure of about four-horse power, the cost, where steam power is used, being about 30s. Large farms are sometimes, we believe, provided with a simple crushing apparatus, in which the seeds are, in the first place, crushed by stampers, the lower ends of which are shaped to correspond with the bottom of what may be called mortars, hollowed out in a solid block of hard wood. The stamping apparatus for extracting the oil is on the same principle as that already described. This apparatus costs about £20, and is capable of crushing about 7 cwt. of seed a-day, at the rate of about 5s. per ton.

The culture of chickory, gradually increasing, affords scope for the operation of a number of chickory factories. It is chiefly in the arrondissement of Roulers that this agricultural industry is to be met with. There it has turned out, both for farmers and the manufacturers, a most lucrative speculation. Although the province does not offer the advantages for the making of sugar from beet-root, and its quick commercial development, there are still favorable examples of factories to be met with. The most successful of these is that of the Messrs. Van Hill, Brothers, at Eessen, near Courtray. We propose, hereafter, to give a short account of our visit to the sugar-making and distilling establishments.

[To be continued.]

## Corn Growing.

I am aware that many farmers have a strong prejudice against what they please to call book learning, but I presume that no one will object to hearing a few words from one of their number. I have been farming on the farm I now occupy for 22 years. I bought my land of government—got my deed of Martin VanBuren—I presume the title is good.

Crops in this locality are good. The present season I am raising 40 acres of corn. I will give you my notes on one acre of yellow flint or red blaze.

The land has been tilled 21 years. The acre was fitted and planted to sugar cane, but the seed denied the resurrection and refused to come up. The land was then cultivated thoroughly and planted to corn on the 6th of June. Now for the result. I will give you my notes for the acre:

May 10—To plowing.....	\$1 00
—To planting and seed.....	50
June 13—To hoeing and cultivating, 1st time.....	1 50
July 10—To plowing and hoeing, 2d time.....	1 50
Aug. 2—To cultivating, 3d time.....	50
Oct. 5—To husking, 4½ days.....	4 50
—To securing fodder.....	1 00
—To use of land.....	3 00
—To drawing manure.....	4 00
Total expense of crop.....	\$13 00

We have 97 bushels of shelled corn at 60 pounds to the bushel, allowing to shrink—being damp—four pounds to the bushel.

By 97 bushels shelled corn at 60c per bush.....	\$43 50
By stalks for fodder.....	7 00
Product of the acre.....	\$50 50
Cost of raising.....	28 00
Net profit of one acre.....	\$22 50
The corn shelled weighs.....	5,320 lbs.
The cobs weigh.....	1,580 lbs.
The stalks green.....	16,450 lbs.
Total product.....	23,330 lbs.

We arrive at our conclusions by weighing before it was shelled, by shelling three baskets, measuring and weighing after it was shelled. We cut and weighed four rods of ground.—Calculate from this the amount of fodder, this appears to be a great burthen for one acre to produce.

My theory of raising corn of the early variety is this. Have the land rich—dry, warm soil for corn—plow deep and pulverize thoroughly; plant four feet one way, two the other,—wide way north and south,—with from five to seven stalks in the hill; hoe and cultivate often enough to exterminate all weeds. This theory faithfully executed, with the blessings of a kind providence, will ensure a good crop and good returns for our labor.

I believe we can grow four tons of corn, green cut, where one and a half tons of grass and weeds will grow, and surely to greater profit to the producer. Besides, it leaves the land in much better condition for the coming crop.

I am more than ever convinced that we farmers do not work our land sufficiently deep, and thorough tillage is indispensable to good crops. Much might be said on this subject, but I leave it to others. The principal part

of my crop of corn is the yellow dent. I intend to measure an acre and give you the result. I have experimented a little with the Prolific corn; I think it should be called *profligate corn*.

Yours truly, JAS. CLIZBEE.

*Certificate of hired man*—I hereby certify that I have helped raise, measure and weigh the corn above mentioned, and that the statements are substantially true.

JAMES O'BRYAN.

Quincy, Oct. 7, 1869.

## The Great North West.

Every rolling year is giving new importance and adding augmented power to this great section of the country, both agriculturally, commercially, and politically. For a long term of years, its productive fields and other resources have enabled thousands who have been constrained to leave the less productive regions of the country, to recuperate their energies, restore their fortunes, and give them the comforts and conveniences of life.—To thousands who have crossed the boundless ocean it has afforded comfort and the means of subsistence, with the smallest outlay of capital. The States of Michigan, Illinois, Wisconsin, Iowa and Minnesota, have but begun to develop the resources afforded by their climate, their soil and their mineral wealth. Especially is this so in our own State. Years ago we were wont to suppose that the eastern portion of our State had reached its ultimatum, and we then looked to the more western and southern portions for a new development of wealth in her agricultural products. We ere long discovered in the region of Grand River Valley, that we had plaster and salt. A few years after, and Jackson county opens her coal beds. The northern portion of our State—the Saginaw Valley—which we once supposed was to be tied down to a lumber trade, proves to be as valuable for agricultural purposes as the southern portion of the State, while there is not probably in the world, a better soil and climate for the raising of fruit than can be found in the latter section. On the borders of Lake Michigan one man has received the snug sum of \$9,000 as the product of eight acres of peach trees, and in the town of St. Jo, where four years ago not a solitary fish was caught, the amount of the fishing trade for the last year is \$80,000. There is no section of our State in fact, but has its means of wealth, which are constantly developing. No State in the Union has done more for the rising youth, in the prudent husbandry of educational means. The principal cities of the State, Detroit taking the lead, as it should from its wealth and position; Ann Arbor, the seat of a University, which, as now organized, having no superior either in its educational scope and designs, nor in the standard of its literary, scientific, medical and legal arrangement, having also its full share of interest in the work of primary education; Ypsilanti, the seat of the Normal School, more prosperous than any of its class; Kalamazoo and Niles, with Union school edifices, for which the citizens have voluntarily raised each some forty thousand dollars; Pontiac and Flint manifesting the same zeal, energy, and liberal spirit, while in each of these and in other places and sections, independent educational institutions have been established, supported by a patronage which is the evidence of enterprise and wealth, in a direction, too, which we may all justly hope will give stability and permanency to the intellectual and moral welfare of our people, in all coming time. Looking still farther north, on the Shores of Lake Superior, are mines more valuable to the State than gold, from which the innumerable wants of the country at large can be supplied, yielding to the State itself a revenue already doubly sufficient to pay the cost of our annual legislation, and yearly increasing. We are, in fact, as a State, advanced as we are, yet in our infancy. Nor have we in the past, hopeful as we may have been, begun to realize the immense resources that lie around us.

Traveling, as many of us do, upon the great thoroughfares, we have lost sight of the immense improvement we have made as an agricultural people. There are cultivated fields where we have been dreaming there were still woods and marshes; there are cattle grazing where but a few years ago, the cranberry blossomed alone; there are flocks and herds where the deer roamed in solitude and safety. There are comfortable houses and costly mansions, school-houses and churches, where but a few years ago the owl hooted and "wolves howled to each other from their dreary pavilions." While we have watched the fluctuations of commerce and bustled and fretted to know whether we were not moving in a circle of progress and decline from year to year, the hardy yeomen of our State have been clearing our forests, cultiva-

ting our fields, building our roads and bridges, erecting structures, adorning the earth with fruit bearing trees and plants, vines and flowers, raising the greatest variety of stock, improving the breed of horses and cattle, and adding untold wealth to our dominions.

We have supposed our eyes were open.—We have all had an idea that things were progressing, but we will venture to wager that the business or other man who has not got off from the accustomed route of steamboats and railroads for the last five years in our State, will find, if he thinks we are writing poetry, that he, too, has been "dreaming a dream," and that he will look in astonishment at the change which has taken place, not in appearance of the villages and cities through which he has constantly passed, but in the whole *face of the country*, throughout the wide borders of the State of Michigan, over which he has not passed.

Our Agricultural Fairs throughout the State have excited the admiration and surprise of eastern people. They find that here, in a comparatively new State, we have furnished "ocular demonstration" that we are second to none as a wheat growing State, that we are not behind the elder States in the variety of our productions, that we have raised as good horses and cattle, and sheep, and hogs, as they can show us, that we have climate that is favorable to the raising of all the various kinds of fruit and vegetables, that the grape can be as successfully cultivated as in the eastern or middle States, and that in invention and discovery, our people have in their midst the practical genius which will enable them to overcome the obstructions which nature or the seasons have seemed to put in their way to prevent the widest development of our resources. These considerations must strongly re-invite to our borders those who have had the notion of passing by us to the more remote fields of Iowa, Wisconsin, Minnesota or Kansas. Let them stop and look. Let the young men of the eastern and middle States, take a thought before they pass us by, and above all, let the hundreds and thousands who stay there, and are forced to work out by the month, or drive a team, or set up a saloon, or take jobs on the canal or railroad, who are healthy, vigorous and able, buy an eighty acre farm, or a bigger one if they like, either in the northern or southern, eastern or western part of this State, and a few years will see them comfortable, happy and contented.—*Marshall Espouder.*

## Effect of Occupations on Life.

A writer in the *Cincinnati Gazette* is giving some very interesting articles on the sanitary laws of life, from one of which we clip the following:

"The effect of breathing a pure atmosphere in promoting health and prolonging life, and the contrary effect of inhaling the foul air of close, unventilated rooms, is most strikingly shown by the vital statistics, both of this country and England. In the annual Registration Reports of Massachusetts and Rhode Island, the average at which death takes place with persons engaged in the different occupations is given. These are most instructive tables; and it is remarkable to observe how the length of life varies in proportion to the purity of the air habitually breathed by members of the various occupations.—Thus in Massachusetts, from 1843 to 1857, the average age at which farmers, gardeners, and nurserymen die, who, of all classes of the population, pass most time in the pure, open air, was 64.38 years. Whereas the average age at death with persons engaged in indoor occupations was much less, and varied in proportion to the degree of crowding and the closeness and impurity of the air in which they worked. Thus, shoemakers died at the average age of 43.19 years, tailors at 42.22, dentists 39.06, silversmiths, 42.28, printers 40.04, editors 42.15, teachers 39.30, jewelers 40.54, barbers, 44.96, cigar makers, 36.86, book-binders 37.50, tailors, 40.41, dress-makers 32.84, milliners 35.12, and clerks or book-keepers 33.47. In other words, the members of these several occupations lose, on an average, from twenty to thirty years of life, as compared with agriculturists, chiefly from want of pure air to breathe, being shut up during the day in close, unventilated shops, offices, and counting-rooms. The Rhode Island reports give like results. That it is not simply a want of exercise which produces this great curtailment of human life, is evident from the fact shown by these same tables, that persons engaged in other indoor occupations, involving no less physical exertion than farming and gardening, yet live no longer than those engaged in the more inactive indoor occupations. Thus founders die at the average age of 42.01 years, furnace-men at 41.54, glass-blowers 37.65, nail-makers 38.16, and machinists at 38.30. Muscular exercise is doubtless necessary for the full development and strength of the body; yet much of the benefit usually attributed to exercise is attributable to the fresh air in which it is usually taken. It is outdoor exercise which benefits the health, even though it be but sitting upon a horse or in an open carriage, while indoor exercise, except in a thoroughly ventilated room, is comparatively valueless.



## NEW ADVERTISEMENTS.

J. G. DUDLEY, Buffalo, N. Y., Scales, safes, bells, &c.  
A. J. HINDS, Grand Rapids, Plaster bed for sale.

## MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, OCTOBER 29, 1859.

## A Word to our Friends

As the time is approaching when subscriptions are generally made to the agricultural papers for the year, a few words to the present subscribers and friends of the MICHIGAN FARMER may not be out of place. Nearly all of the present subscribers to the Farmer are well aware that when we started the MICHIGAN FARMER as a weekly, it was in the midst of a season that was unparalleled for the exceeding severity of the times amongst farmers; and very many were the notes we received from old acquaintances, telling sad stories about "nothing to sell," instead of the usual enclosures and the names of clubs which their friendly exertions had secured in former years. Nevertheless, in spite of these discouragements, we made the FARMER equal in all its departments to any of the weekly agricultural journals published in the Western States, and certainly superior in every way to any of the eastern journals, in the immense amount of information it contained relative to Michigan agriculture and the subjects connected with it. Our readers will remember that the series of illustrated articles on wools alone contained more information on the subject than had ever appeared in any journal of the kind. They are well aware, also, of the course pursued by the FARMER on the subject of the markets, and how useful our reports have been in guarding them against imposition and misstatements. We refer to these matters as showing that if the farming community of the Peninsular State will only show the disposition to sustain a first class agricultural journal, perfectly independent of all other interests except that of "The Farm, the Garden and the Household," they can do so; but it must be done by themselves taking hold and giving it an earnest of the interest they feel in its prospects, by not only subscribing, but by procuring those who live around them to join with them in the work. There are very few of our subscribers who cannot add two new names at least to their own, in any of the localities to which the FARMER is sent; and we hope that this season, now that we have proved that a good agricultural weekly journal can be published in Michigan, our friends will be encouraged to give it the patronage it needs to make it all that our most sanguine agriculturists can expect such a journal to be.

## The British Wheat Crop.

The month of September having passed, the crops of Great Britain may be considered as fully secured, and we note with interest what is said concerning them, as whatever affects them materially affects us. The demand for choice Michigan white, and the importance of the supply of the best quality is being manifested strongly this season. The action of the Board of Trade of Detroit in classifying the kinds and qualities of wheat sent to this market has been forced upon the dealers as much by the eagerness for a supply of the choicest article, as by the attempt made to mix the Michigan grown white wheat with an inferior article, and then sell the whole for the genuine grain. The importance of being able to furnish a clean white wheat is shown also in the prices which the article maintains, in spite of a general feeling that there is little hope of a movement upward for this season from abroad. On this part of the subject, we quote from the *London Farmer's Magazine*, its remarks on the crops just secured:

"In our last month's report we intimated that not as much wheat had been grown this year as in 1858, and, farther, that the general quality and condition of the samples were various, and comparatively inferior. Such is our opinion still, and the accounts at hand from nearly every county in England continue to confirm this impression. Here, however, we may observe that the new wheats do not weigh well, the difference on them compared with last season, being three to four pounds to the bushel; hence they will yield so much the less flour. Of course, there are exceptions, but taking a deficiency as a basis of our calculation, we may consider the effect it will have upon prices. That there is abundant room for an upward movement in the quotations, considering that scarcely any foreign flour is now competing with home grown wheat, and that our granaries are by no

means heavily supplied with the unmanufactured article from abroad, is evident; but against a falling off in the growth this year, we have to place a large supply of old English wheat in stock. This supply will, of course, influence the millers' operations, and any increase of flour from the United States towards the end of the year, will no doubt throw a large quantity of home grown wheat out of steady consumption."

From this it will be seen that whilst there is enough to keep prices pretty steady, we must not look for any very great change either up or down, and as we know pretty nearly what our home demand is, there is little hope of any speculative fever arising of which the wheat producers will get the benefit for some time to come.

## Thorough Breeding.

It will be seen that we give some attention in this number to the question of thorough breeding, and of the exactness necessary in making out pedigrees. Our attention was called to this subject by the remarks of a gentleman who has recently been making purchases, in which he said, "he was unwilling to pay a large price for animals with unblemished pedigrees, which bore testimony to the qualities bred into the animals he had selected and bought, and be put on a par with those who had allowed themselves to be stuck with any thing that an interested seller might have the audacity to impose on their ignorance." He is right, but pedigree is not all; we must have both pedigree and quality.

## The State Fair.

## THE SHEEP.

In no part of the exhibition was there more of interest manifested than in the show of sheep which was presented the present year, and the competition which they excited. The entries show that there were present—

Spanish Merinoes.....	62
French Merinoes.....	16
Saxon and Silesians.....	28
Southdowns.....	28
Leicesters and Cotswolds.....	31

There was more competition among the breeders of the large English breeds than we have ever seen before, showing that much more attention is being given to the introduction and breeding of these kinds than has been in previous years. The exhibitors of the fine wools, such as Starkweather, Peckham, Schuyler, Butterfield, and Gillett, whose names have been familiar to us for years as those who have aided to give character and reputation to the fine wools of the State, are still on hand, and bear off premiums; to these names, however, we note that Ionia county has added that of A. Hitchcock, of Lyons, who took the first premium for the best aged Spanish Merino buck. This is something of an honor, considering the old and practiced competitors he had to meet in the sheep pens, and the fact that Ionia county has thus appeared at the State Fair for the first time, as having breeders of pure Spanish Merinoes who could win first premiums. How creditable and how useful is such a reputation to her farming interests.

The Messrs. Whitfield, of Oakland county, of course, were present with a large class of Southdowns, on which they took off a large number of premiums; but they had a sharp contest with other breeders, who are coming up with them. The Leicesters and Cotswolds were well represented from our own State by Messrs. Crawford, of Commerce, Prigdon, of Branch county, and Coonradt, of Jackson. There was also a very fine show of Cotswold sheep from Ohio, and from Canada West; in fact, better opportunities were afforded of judging of the quality of this breed than we have ever before seen at our State Fair.

## THE SWINE.

The exhibition of swine was very meagre in comparison with the show of other live stock. There were some good animals shown, however, such as can hardly be excelled in any collection. The pens showed samples from the stock of J. S. Tibbits, of Plymouth, E. Hamilton, of Royal Oak, F. E. Eldred, of Detroit, and A. C. Harris, of Toledo.

## THE POULTRY.

The exhibition of poultry was a very superior one, F. Leslie, of Dearborn, making a fine display of both large and small kinds, and Mrs. Cressy, of Royal Oak, giving great variety to the exhibition by the large number of kinds of the barnyard fowl which she placed in the ample pens. In addition to this, Stephen Louth, of Detroit, exhibited the finest collection of various kinds of fancy rabbits that we have ever seen in Michigan. It was really a treat to see the great-eyed and lop-eared, many-colored little fellows, and they afforded almost as much entertainment to some of the visitors as *Magna Charta* himself.

## THE IMPLEMENTS.

In the implement department there was a very full and magnificent show. The en-

tries in the several departments were as follows:

Implement for the cultivation of land.....	64
Apparatus and machines for harvesting.....	53
Apparatus and machines connected with the cleaning and preparation of crops for market.....	48
Barnyard articles.....	85
Dairy and household articles.....	18
Miscellaneous.....	28

Here, also, was a department, in which the agriculturists are deeply concerned, which we think has not had attention enough given to it by the State Society. There is no part of the annual proceedings of the State Fair that can be made more useful and more attractive than the implement and mechanical department, and yet in comparison with the horses, it does not stand a sight at a chance. This is wrong, and ought to be corrected. There were on the grounds plows, harrows and seed-sowers of the most approved make, from the best manufacturers in the State. Who could look on the splendid workmanship of the wrought-iron plows exhibited by Moir & Hunter, of Northville, and not have a desire to see them tried, as well as the finely made subsoil plows, of the most approved pattern and finish, which they had on the ground?—In fact, their wrought-iron work was as fine specimen of agricultural implement work as is to be seen in any country. Then again, there was the collection of implements and machinery from the manufactories of Waters, Lathrop & McNaughton, of Jackson. This firm, which we have noticed already as extending their operations into all the Western States, and building up a trade and business that is promising to be of great advantage not only to Jackson but to Michigan, added to the interest of the State Fair by a most liberal display of what they produce in their workshops. Plows, harrows, garden tools of every description, harvesters, mowers, scythes, horse and hand rakes, grain cradles, horse-powers, threshers, fanning mills, and many other articles equally necessary to the farm, were to be found in their collection, and will be found on the premium list as bearing off prize after prize. And not only have this firm done this at our own State Fair, but we find their names occupying a distinguished place in the list of awards, at the National Fair of Chicago, at the great St. Louis exhibition, and at the Illinois and Wisconsin State Fairs. There were also many articles exhibited by other manufacturers; amongst which the harvesters of R. L. Howard, of Buffalo, and Kirby's combined reaper and mower, attracted much notice. Daines, also, was present and busy with his tile machine, making tile, and showing how easy this work could be done, when his machine was at hand. The Messrs. Penfield, of Detroit, as is usual, had a good selection of agricultural implements on the ground, and amongst them was a good portable furnace. The portable horse power mill of Howard, of Buffalo, attracted a very great deal of attention, and the special consideration of the committee.

Having found some fault with the action of the Society in not giving more attention to implements, it may not be improper in this place to suggest the proper remedy for this defect. It is therefore suggested, that for a single year the department of implements should have as much as possible of the whole attention of the Society given to it. Let the premiums in the plows, harrows and seed-drills be increased. Let full arrangements be made to test all the articles that may be entered under this head. Let provision be made in the special rules, that all entries for competition in this class must be made the week previous to the opening of the fair; and having thus a fair knowledge of the amount of work to be done, let special committees be appointed to test, not by plowing matches that resemble tests of trotting stock, but by attention to the merits of the several implements themselves, and their capability of doing the work required, of them, the merits of the several entries. For this purpose proper grounds should be secured, and a portion or the whole of one day, at least, set apart for the trial and test of the implements entered. We believe that this could be made a very interesting part of the programme, but it would need the co-operation of judges who would be sure to be present and act. There are numbers who attend our fairs, who have never seen the action of a subsoil plow: to them the work of this implement would be of the utmost consequence. So with the operation of many of the drill and broadcast sowing machines now in use. To very many the working and test efficiency of these machines would be of great value, and as the whole operation might be conducted on the first day of the fair whilst the entries of other articles were being made, it need not interfere with the usual programme. To the inventors and makers, of course it would be of value as tending to bring these articles before a vast public deeply interested in knowing all their good qualities. We hope for an improvement in this respect another year, and that the movement will be seconded by the implement makers themselves.

Amongst the machines exhibited, none com-

manded more attention and respect than the Waters steam plow. It was not shown at work, with the plow, but it was put in motion several times during the Fair, and the maker exhibited its method of doing the work of draught.

No part of the Exhibition was more worthy of attention or received more than the vegetable department. The hall, which last year showed a very meagre attempt to fill the shelves, was this year crowded with the finest specimens of garden culture, and with seeds and other articles, that were examined with much interest by the very large crowd of visitors that thronged through it all the time.—In this hall, also, were exhibited a very fine number of specimens of the agricultural productions of Sanilac county, which were sent down from that locality under the charge of our friend Mr. Isaac Leuty, and who acted as agent for the Sanilac Agricultural Society.—The Society could not have appointed a more efficient and active person, and if the visitors to the State Fair did not become acquainted with the productive powers of Sanilac, it was not his fault. In this movement, Sanilac set a good example, and one worthy of a special award, which we hope she will get.

The exhibition on the Fair grounds of freight and drovers' cars by the Michigan Central Railroad, was a new feature, which gave very general satisfaction, and for which the Society is indebted to R. N. Rice, Esq., and the enterprise of the workmen of the Company.

## The Willis Stump Machine.

We are informed by Mr. Blackmar, the proprietor of the right of the above machine in this State, that he has appointed Dr. Post, of Ypsilanti, as his agent to sell rights in all portions of the State. Dr. Post has also called at our office, and informs us that he is making preparations to take hold of the work in earnest, and that he will visit different localities for the purpose of disposing of county and town rights, and showing farmers how they can be rid of the troublesome pests of the meadows and wheatfields.

Of the utility of the Willis Machine, we have often spoken in our columns. Those who took the FARMER in 1856 will recollect an account we gave of its trial at Ypsilanti in the summer of that year. The following statement was then made in relation to its operation and effectiveness:

That it possesses in an eminent degree the points by which the effectiveness of a Stump Machine is to be judged.

1. This extractor can be made to exert any amount of power.
2. This power can be rendered available at a small cost.
3. It can be easily moved from place to place.
4. It is not liable to get out of repair, and should any part break, an ordinary mechanic can repair it.

The machine consists of a strong lever on wheels. The long arm of this lever is moved by a pair of oxen, or by one or two horses—This is all the power that would be ordinarily required. But it might usually be worked with a single horse just as well as with a team. The fulcrum to which the lever is fastened, is either an anchor stump selected in the field, or a beam sunk in a trench dug for that purpose. Every turn that the lever plays backward and forward, it pulls upon the chain which attaches it to the stump or lifting apparatus, with tremendous power.

The cost of operating this extractor is light. Two men and a single horse will work it advantageously; three, however, is apparently the full complement needed; one man to change the chain and work the lever, and two to move the chain, and fasten it to the stumps, and unfasten it as fast as the stumps are pulled. With this force an ordinary field may be cleared of stumps at the rate of from two to three acres per day.

Any further information may be obtained by addressing Dr. Post at Ypsilanti.

## The Buckeye Mower.

EDITORS MICHIGAN FARMER.—In the publication, in your excellent paper, of the "List of awards" at the late State Fair, we are said to have been awarded "Diploma and \$10," for "Two-horse Mowing Machine"—which is correct as far as it goes, and which was, of course, the first premium on machines of that description, of which there were several on exhibition from different States and of different patents.

It is due, however, to the patentee that it should be stated, that the machine which we exhibited, and on which we received this First Premium, was the BUCKEYE MACHINE of Aultman & Miller's patent, of Canton, Ohio, of

which we are not the proprietors but manufacturers in this State.

Very respectfully, yours,  
WATERS, LATHROP & McNAUGHTON.  
Jackson, Mich., Oct. 26th, 1859.

## Literary News.

*November Magazines Received.*—Harper, with its usual variety of illustrations, serious and comic, and a great variety of reading, including the end of the Virginians. The *Atlantic Monthly* now published by Ticknor & Fields, and carrying on the Professor, yet at his breakfast table, and the Minister at his wooing, which is no wooing by the Minister at all. The *Lady's Book* full of such things as please the ladies for whom it is got up. The *Ladies American Magazine*, ditto.

The *Cincinnati*, a double number, for October and November, comes to us well filled with useful and instructive articles. It has now a very able corps of editors—F. G. Cary, A. M., in the Agricultural department, J. A. Warder, M. D., in the Horticultural department, and W. H. Olney as business and traveling editor. Each number is illustrated with a handsome engraving, and the typographical part is well executed. It is published at College Hill, Ohio, at \$2 per annum.

A new paper for inventors and machinists.—Messrs. Leavitt & Co., commission agents, of New York, have commenced the publication of a paper entitled the *Practical Machinist*, devoted to the encouragement of inventive genius and mechanical skill. The first number promises well. It is a quarto of convenient size, and the subscription price is one dollar per annum.

*Merry's Museum.*—This pretty little magazine for the young folks continues to be as useful and entertaining as ever. It is filled with pleasant sketches, poetry, engravings, riddles, puzzles, &c.

*Western Farmer's Magazine.*—A new agricultural paper has been started in Chicago, bearing the above title. It is published by Birdsall Bros., at one dollar a year.

William Gilmore Simms, the poet and novelist, has just finished his "History of South Carolina," a work which will doubtless prove to be a valuable addition to the historical literature of the country.

Little, Brown & Company have a new volume of Hon. Edward Everett's Orations and Speeches in press, which will shortly appear in connection with the fifth edition of the author's works. The new issue will be uniform in style and price with the previous volumes.

The *Press* says that the *Atlantic Monthly* was offered for sale to Messrs. Childs and Peterson of Philadelphia, and by them declined. The *Press* adds that "the actual circulation of the Magazine is said to be about forty five thousand a month, but the cost paid for editorial labor and to contributors averages \$18,000 per annum, which is double the amount paid, in its palmy days—when Wilson, Lockhart, Hogg, and Maginn wrote largely—by Blackwood's Magazine."

The *Atlantic Monthly* has since been purchased by Ticknor and Fields of Boston, for \$10,000.

Mrs. Stowe's "Minister's Wooing" is issued in London in two editions—one at 7s. 6d., and one at 2s. 6d. The first has thirteen illustrations, and the second only one—by H. K. Browne. So far, the sale of the book is said to be 5,000 copies.

The sale at auction of the library of the late Rufus Choate commenced on Tuesday. The books brought remarkably high prices, especially those containing Mr. Choate's autograph.

Bayard Taylor's lectures in San Francisco, produced a profit of \$1,500 to the Mercantile Library Association.

Mrs. Fanny Kemble and her daughter returned from England in the Europa.

## General News.

—The contest that is now going on in Venezuela is one of violence, death and pillage, without any political object. Acts of atrocity are numerous—in the provinces amounting to the annihilation of whole communities.—Nothing but foreign intervention, it is contended, can save the country from entire destruction.

—The committee to whom the matter was referred by the Common Council have reported in favor of the construction of horse railways in this city.

—A company have purchased the Glasgow steamers and will run them in a line between Philadelphia and Liverpool.

—Notwithstanding the capture of Schamyl the Circassians are still in arms against Russia and under a bold leader may yet hold out for some time.

—By the steamer Ocean Queen from Southampton we learn that Robert Stephenson, the eminent Railroad engineer, is dead.

—It is now rumored that the Great Eastern steamship will not make her American trip this fall.

—Austria has refused to diminish the share of the public debt to be borne by Lombardy. This appears to be the great obstacle in the way of a settlement.

—Gen. Garibaldi has issued a proclamation to the army of Italy in which he says: "Soldiers, the hour of a new struggle approaches. The enemy is threatening, and will perhaps attack us before many days are over. In addressing my old companions of Lombardy, I know I am not speaking to deaf men, and that it is enough to tell them that we are going to fight the enemy of Italy.—I shall look to see you, then, form in your ranks."

—Mr. Lowe has almost completed his "air ship," and intends soon to make short trips for the purpose of testing it before undertaking his transatlantic voyage. He has had a great number of applications for passage.

—A serious break occurred in one of the main pipes connecting the two reservoirs in New York last week resulting in the flooding of one portion of the city and a short supply of water in another.

—The reinstatement of Bishop Onderdonk has been virtually denied by the House of Bishops.

—The propeller Troy foundered on Lake Huron last week, by which twenty-three lives were lost—only three persons being saved.

—The outbreak at Harper's Ferry has been effectually quelled. It turns out that only twenty-two persons were engaged in it, twelve of whom were killed, six taken prisoners and four escaped. Their object was the freeing of the slaves of Virginia, and they were led by "John Brown" of Kansas notoriety. The prisoners are now on trial for murder before a Virginia Court, and will probably be found guilty and hung within a few days. At least such seems to be the determination of authorities.



## The Household.

She looketh well to the ways of her household, and ateth not the bread of idleness.—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

## THE CLOUD AND STREAM.

BY MRS. L. B. ADAMS.

Low moans the sad autumnal gale  
It will not let the dead leaves rest,  
See, one by one down the vale,  
It flings them on the streamlet's breast.

Poor withered leaves! poor silent stream!  
Together died your bloom and song,  
For you how brief the Summer's dream,  
For you the Autumn gloom how long.

November winds are sad and low,  
The dead leaves sink beneath the wave,  
The streamlet murmurs in its flow  
As if it too would find a grave.

O murmuring one, thy ocean tomb  
Far in the future years may be,  
And leaves may bud and flowerets bloom  
Along this silent vale for thee.

Low sounds November's latest sigh;  
Soft fall the snows above his bier,  
And bloom and song and beauty die,  
While winter shrouds the buried year.

But life is waking in the vale  
Again beneath the light of May,  
And June's sweet rose and lily pale  
Bend o'er the wandering streamlet's way.

Yet not one passion-dimpled smile  
Awakes for rose or lily fair,  
And plaintive moans the brook the while  
Beneath the bloom and foliage rare.

But soft amid the Summer light  
A mystic lay of love is sung—  
O, not for wild flowers wreathing bright,  
Or leaves upon her bosom flung.

A white cloud in the skies above  
Lies, like an angel form at rest,  
With softly folded wings of love,  
Deep mirrored in the streamlet's breast.

That sun bright cloud! how low it bends,  
What joy its heaven-born beauty brings!  
With hers its being almost blends—  
It wraps her with its shadowy wings!

From bank to bank the brook's sweet lay  
The thrilled and rippling wavelets bear—  
She lingers on her tranced way—  
Her cloud love lingers in the air!

On her soft breast his image lies,  
And he, for such sweet joy as this  
Would almost leave the azure skies,  
And melt amid those depths of bliss!

It may not be! O bending cloud,  
Away; the parched earth calls thee now;  
Amid the gathering storm kings proud  
There is no prouder one than thou!

Away; thy lightning sword must flash  
In stormy scenes and stirring strife,  
Where battling ranks with thunder crash  
Meet on the tented fields of life.

But ever 'mid the discord wild,  
Will come to thee in grief or wrong  
The memory of the forest child,  
The wayward brooklet's love and song.

It may not be! alas, fond stream,  
Though mirrored in each trembling wave  
Thou'lt bear thy cloud love like a dream,  
A shadow to thy ocean grave.

With quiet songs adown the vale  
Thou still may'st chant thy hapless lay,  
Beneath November's storm clouds pale—  
Beneath the blushing skies of May.

But dearer than the skies above  
Or summer flowers that round thee bloom,  
The memory of that cloud-land love  
Thou bearest to thy ocean tomb.

## Farmers' Families.

"I cannot understand why it is, wife," said old Mr. West, "that after all we have done for our children, and the pains I have taken, and the expense I have been at to get land enough for them all to settle down on right around home here, not one of them can be coaxed or hired to stay. The boys want take a hundred acres apiece, and stay on it; and the girls have gone and married town men who have to depend on days' work for their living, when they might have had the best homes in the country if they had not got so set above being farmers' wives. Now, after all our hard work in bringing up a large family, here we are, alone, in our old age, without a child in twenty miles of us. I don't understand it, but there must be something wrong somewhere."

"It seems hard to have it so," replied the wife sadly; "but after all, a farmer's life is a hard life to live, the way we have had to do, and I don't much wonder the children get set against it. I know I should hate to live my part over again. When I think of it all, I cannot blame them much for wanting to try something else."

How many good old farmers, throughout the State might take up this lamentation, and how many wives, grown weary and old before their time, might answer in the same words with equal sadness and truthfulness? They are forced to exclaim, "There is something wrong somewhere!" and there they stop, never thinking to inquire into the cause of the evil, or to look for a remedy.

The evil is a great one. It has for years robbed agriculture of what should be its strength and hope by driving the young men and women from the farming community to seek for more varied, if not less laborious, du-

ties in town and city life. But, great as the wrong has been, and still is, it is slowly and surely working its own cure. The class of farmers fast coming up to take the place of those like our old friend quoted above, are beginning to learn that they must progress with the times, that they must admit science and intellect into their fields and barnyards where they want their boys to work, or the boys will soon grow restless, performing their labor like so much mechanical drudgery, and longing for their days of freedom when they can go out into the world and be like other people. And they will go, as generations of farmers past have found to their sorrow, unless employment is given to the brains as well as to the hands. Formerly, in the days when old Mr. West was rearing his family, it was not thought necessary for farmers to have brains at all; at least it was not supposed there was any necessity for using them in the performance of ordinary farm operations. The main thing was to work, and anybody with ordinary senses and two good stout hands could do that. It all did very well as the world went when the old man was young, and one generation trudged on after another, happily oblivious of the existence of elements in water, earth and air that were waiting but the electric touch of science to enable them to burst forth in the blaze of light, flash after flash of which has startled the world with new developments almost without number within the last ten or twenty years. How obstinately the mass of farmers shut their eyes against the light! They had their hands and hoes and plows and oxen, what use had they for brains or brain-work in books or papers! They closed their doors against knowledge, and put up their bars and padlocked their gates against every threatened innovation of science. It was work they wanted of the girls in the house, and work they wanted of the boys in the fields. And the boys and girls did work, but they were listening and looking too—and thinking. Listening to the sounds of new life waking in the world without; looking with great longing toward the distant and forbidden lights, and thinking, not how they might kindle new fires on their own hearthstones, or open the gates of prejudice to let in something of the life that so tempted them from without, but only of the day when they should be legally free from parental control, and at liberty to turn their backs upon the old homestead and the monotonous drudgery of farm life together, and forever.

It was so with Mr. West's sons and daughters; it has been so with thousands of others, and will be so with thousands more, till farmers as a class are willing to welcome improvement, to seek for light, and to use it when they get it. They are learning to do so gradually, individually. The heaven is spreading, in some directions rapidly. Men see that only in the light of science can labor, such as the farm requires, be made attractive and elevating. To be sure, men and boys can dig and plow, and sow and reap, and make a living in the old way, but the farther behind the times they are, the more frequent will be the desertions from their ranks of the young and strong, who bend toward the excitement of change and improvement as young plants bend towards the light of day. Change, innovations, improvements, are going on everywhere else; why not in the fields and household of the farmer as well?

Poor Mrs. West could not find it in her motherly heart to blame her daughters for refusing to become farmers' wives. She knew that for her own toilsome life there had been no relief. Even when success crowned their labors, and prosperity smiled upon them, it was all the same with her as when they began the struggle against poverty and the hardships of a new country. Houses and barns were built, acres were added to acres, flocks and herds multiplied, and all together only added to her cares and increased her labors. Her husband had help in the fields till his boys grew up, and even after that at the busy seasons of the year, but in the house, what farmer thought of hiring help to do the housework? Only the housework! If that very expressive word had some definite limit to its meaning, it would be easier to judge of the propriety of demanding from one pair of hands all its requirements. At Mr. West's it comprehended the milking of the cows, the care of the young calves, the pigs and the poultry, nearly the whole cultivation of the garden, all of the dooryard, and all the work in the house from the cellar to the garret, including spinning, weaving, and making butter, as well as the cooking, washing, making and mending necessary to be done for a family usually averaging from six to eight in number. The girls, as they came up from the cradle, were early and thoroughly drilled in the performance of all that their little hands could do, even at times to the overtaking of

their strength. They had little time for school, none for study or improvement at home; they grew weary of it, and made their escape before half their youth was past. There was but one view of farm life to them, and that was such that every idea connected with it begun and ended in labor—labor without rest or recompense. When the weary old mother looked back upon what their childhood had been, and thought of them filling the place of farmer's wife, as she had done, she could only say, "I cannot blame them for wanting to try something else."

There are too many such families yet in our State; too many boys and girls with undeveloped intellects, and bodily energies overtasked, looking wearily forward for the relief of change, which they hope to find in marriage or in the liberty that the fullness of legal years will give them. Farmers, if you would make your sons and daughters contented, and have them near to comfort you in your old age, open your doors and windows to the light and knowledge that is flooding the rest of the world. Let it come to your children at home, not force them to go out amongst strangers to seek for it. Feed and clothe, strengthen and beautify their minds as well as their bodies, if you would have them perfect men and women, a blessing to you while living, and an honor to your memory when you are gone.

## "I Haven't the Time."

"George," said his teacher one afternoon, "I wish you would arrange your drawing materials in a little better order."

"I was intending to do so, Mr. Wilton," replied George, "but I haven't the time."

"Take time then," returned Mr. Wilton. "Order is the first law of heaven, and it should be also the first law of earth. When you commenced your drawing this afternoon, you had been just one half-hour looking for your implements, and even then you were forced to borrow, not because you had none of your own, but because you could not find them. It is a lamentable fact, that a bad practice indulged for a time becomes a habit, and like an infectious disease, soon contaminates the other faculties."

George Atwell was a frank, good tempered boy, studious and obedient in school, and in truth industrious, but his industry consisted in hurrying to overtake time already lost.

"I haven't the time," was his excuse for any neglect of duty; and so good was he in his disposition that his fault was passed over by his widowed mother, who doted on her boy.

"George, will you fasten the hinge on the garden gate?" asked his mother one morning. "I haven't the time now, mother. I shall be late at school if I stop to do it, for I have had to hurry so about that wood I could not cut last night, but I will fix it after school."

"There, mother," said George, as he was about to retire, "I forgot all about that hinge; but, however, I hadn't the time to fix it to-night. Never mind, I'll do it in the morning."

George arose early, and on repairing to the garden a sad sight was presented. The cattle finding the broken gate no obstruction, had entered the garden, trampled the beds, broken down or eaten the vegetables, while a score of pigs had finished the work of destruction so well begun.

George wept with sorrow and vexation, but soon consoled himself with the thought that it was not his fault, for he should certainly have mended the gate if he only had time.

"The better way," said his mother, "is to defer not till to-morrow what should be done to-day; and if you will only remember that there is a time for everything and will do everything in its time, the difficulty will be avoided."

Firmly as George resolved to follow his mother's advice, it was but a few weeks before a valuable horse was drowned, because the busy boy had not time to cover the well in the lot.

When he became a man he lost his farm by not having time to inquire into the validity of the title. Then his house was burned, and, alas! it was not insured; the policy had expired a few days before, and he had not found time to have it renewed.

## True Duncan and the Cat.

Once there was a little boy named Duncan. The boys used to call him *True Duncan*, because he never would tell a lie. One day he was playing with an ax in the yard of the school, and while he was chopping a stick, the teacher's cat, Tabby, came along. Duncan let the ax fall right on poor Tabby's head and killed her. What to do he did not know. She was a pet of the master, and used to sit

on a cushion at his side while he was hearing the lessons.

"Now, fellows," said one of the boys, "we shall see if Duncan can't make up a fib, as well as the rest of us."

Big Jones stepped up, and taking the cat by the tail, said, "Here boys, I will just fling her into the alley, and we can tell Mr. Cole that the butcher's dog killed her; you know he worried her last week."

Several of them thought this would do very well. But Duncan looked quite angry.

"No!" said he, "no! Do you think I would lie for such a creature as that? It would be a lie a lie, a lie!" And every time he said the word his voice grew louder and louder. Then he picked up the poor thing in his arms, and carried it into the school-room, and the boys followed to see what would happen. The master looked up and said:

"What is this? My faithful mouser dead! Who could have done me such an injury?" All were silent for a little. As soon as Duncan could get his voice, he said:

"Mr. Cole, I am very sorry—but here is the truth. I can't lie, sir; I killed Tabby, but am very sorry for it. I ought to have been more careful, for I saw her continually rubbing her sides against the log. I am very sorry indeed, sir."

Every one expected Mr. Cole to take down his long rattan. On the contrary, he put on a pleasant smile, and said:

"Duncan, you are a brave boy. I saw and heard all that passed from my window above. I would rather lose a hundred cats than miss an example of truth and honor in my school. Your best reward is what you feel in your own conscience; but I beg you to receive this handsome penknife as a token of my approbation."

Duncan took out his little handkerchief and wiped his eyes. The boys could no longer restrain themselves, and when Tom Pooley cried "Three cheers for True Duncan!" all joined in a hearty hurrah.

## Household Varieties.

## ROMANCE AND REALITY.

How very absurd is half the stuff  
Called "Poetry," now-a-days!  
The "stanzas" and "epics" and "odes" are enough  
To put every lover of rhyme in a huff,  
And disgust 'n old hens with their "lays."

One asks but a "cave" in some "forest dell,"  
Away from the cold world's strife;  
Now the woods in fine weather are all very well,  
But give him a six weeks' "rainy spell,"  
And he'd soon "cave in" in his "forest cell,"  
And be sick enough of life.

One loves (how he loves) the glittering foam  
And the mad waves' angry strife;  
But take the young genius that wrote that "pome,"  
Where the billows dash and the sea-birds roam,  
And he'd give all he had to be safe at home,  
And stay there the rest of his life!

Close of the Week.—A week! It is but a short time indeed, but its events are a host, its changes many. To whom has the week just about to close brought joy?—to whom sorrow?—to whom riches?—to whom poverty?—to whom enemies?—to whom love?—to whom hatred?—to whom misery?—to whom happiness?—to whom sickness?—to whom health?—to whom life?—or, to whom DEATH? What! all these in one week? Yes, and a host more numerous than the sands of the sea. Many who saw the dawning of the present week will be in another world before it closes; many upon whom fortune smiled but a week ago, are now groaning beneath the withering frowns of poverty; many who were floating gently on the bark of life, o'er the untroubled sea of happiness, a week ago, are now the wrecks of ruin on the shores of affliction; many upon whom the sun of the last Sabbath shone propitiously, have, ere this time, met with some misfortune, and are turned upon the world, the children of poverty; and many whose expectations and hopes were beaming forth bright and prosperous at the dawn of the week, find themselves at the close the sad and miserable beings of cruel disappointment.

And such is the fate of man! It is subject to changes in a week, a day, nay, even an hour. The world is still in commotion, revolution succeeding revolution; time whirling in its rapid progress, leaving behind its trace of destruction. And even in a small community many thrilling and exciting circumstances might be summed up and recorded at the close of each week.

Outside and Inside.—"Two things a master commits to his servant's care," saith one—"the child and the child's clothes." It will be a poor excuse for the servant to say at his master's return.

"Sir, here are all the child's clothes, neat and clean; but the child is lost!"

Much so with the account that many will give to God of their souls and bodies at the great day: "Lord, here is my body; I was very grateful for it; I neglected nothing that belonged to its content and welfare; but as for my soul, that is lost and cast away forever,—I took little care and thought about it!"—*Flavel.*

Marriage.—I never, says Mrs. Child, saw a marriage expressly for money that did not end unhappily. Yet managing mothers and heartless daughters are continually playing the same unlucky game. I believe men more frequently marry for love than women, because they have a free choice. I am afraid to conjecture how large a portion of women marry only because they think they will not have a better chance, and dread becoming dependent. Such marriages do sometimes prove tolerably comfortable, but the greater number would have been far happier single. If I may judge by my observation of such matters, marry-

ing for a home is a most tiresome way of getting a living.

The New York Tribune says,—"A letter, purporting to have been written by Senator Douglas to Lucy Stone, in reply to an invitation from her to attend a Woman's Rights meeting at Chicago, was recently published in this and other journals. Mrs. Stone however, pronounces it a hoax. In a letter to the *Liberator* she says:

"I am surprised to learn that the letter going the rounds of the newspapers, purporting to be from Stephen Arnold Douglas to me, is being received as a veritable correspondence. The hoax seemed to me so barefaced that I never gave it a second thought. I have never written to or received a line from Mr. Douglas, and it not to such men that the Woman's Rights cause appeals for help."

## Duty and Kindness.

There was an angry frown on the countenance of Deacon Jonas Browning. There were tears on the sad face of his wife.

"He shall be sent to sea," said Dea. Browning, sternly.

There was a pleading look in the eyes of Mrs. Browning, as she lifted them to the iron face of her husband. But no word passed her lips.

"He shall be sent to sea; it is my last hope."

"Phillip is very young, Jonas," said Mrs. Browning.

"Not too young for evil, and therefore not too young for the discipline needed to eradicate evil. He shall go to sea! Captain Ellis sails in the 'Fanny Williams' on next Monday. I will call upon him this very day."

"Isn't the 'Fanny Williams' a Whaler?" The lips of Mrs. Browning quivered, and her voice had a choking sound.

"Yes," was firmly answered.

"I wouldn't send him away in a whaler, Jonas. Remember—he is very young, not thirteen until next April."

"Young or old, Mary, he's got to go," said the stern deacon, who was a believer in the gospel of law. He was no weak advocate of moral suasion, as it is familiarly termed. He went in for law, and was a strict constructionist. Implicit obedience was the statute for home, and all deviations therefrom met the never withheld penalty.

Mrs. Browning entered into no argument with her husband, for she knew that would be useless. She had never succeeded in changing his purpose by argument in her life.

Phillip, the offending member of the Browning family, was a bright, active, restless boy, who, from the start had been a rebel against; unreasonable authority, and, as a matter of course, not unfrequently against authority both just and reasonable. Punishment had only hardened him; increasing, instead of diminishing, his power of endurance. The particular offence for which he was now in disgrace, was, it must be owned, rather a serious one. He had, in company with three other boys of his age, known as the greatest reprobates in the village, rifled a choice plum tree, belonging to a neighbor, of all the fruit, it contained, and then killed a favorite dog which, happening to discover them at their wicked work, attempted to drive them from the garden. The neighbor had complained to Deacon Browning, accompanying his complaint with a threat to have Phillip arrested for stealing.

"If you don't do something with that boy of yours," he added, with considerable feeling, "he'll end his days in the State prison, or on the gallows."

When Deacon Browning met his son Phillip after receiving intelligence of his great offense, it was with a stern, angry repulsion.—He did not see the look of appeal, the sign of repentance, the plea for mercy that was in the tearful eyes. A single word of kindness would have broken up the great deep of the boy's heart, and impelled by the warmer impulses inherited from his mother, he would have flung himself, weeping into his father's arms. But Deacon Browning had separated duty from kindness. The one was a stern corrector of evil, the other a smiling approver of good.

Very different were the mother's efforts with the child. Tenderly she pleaded with him—earnestly she besought him to ask his father's forgiveness for the evil he had done.—But Phillip said—

"No, mother. I would rather go to sea.—Father don't love me—he don't care for me. He hates me, I believe."

"Phillip! Phillip! Don't speak in that way of your father. He does love you; and it is only for your good that he is going to send you to sea. Oh, how could you do so wicked a thing?"

Tears were in the mother's eyes. But the







# MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue.  
DETROIT, MICHIGAN.

S. FOLSOM,  
WOOL DEALER,  
90 Woodward Avenue,  
DETROIT, MICHIGAN.

## THE MARKETS.

**Flour and Meal.**  
It is becoming more evident every day that there will be this winter some considerable foreign demand for our surplus breadstuffs. Indeed a few shipments have already been made, and the general belief that they will be followed by still heavier, must have aided in producing the late improvement that has taken place in the East. At all events, an improvement has taken place and the excited and advancing markets throughout the West show that its influence is widely felt. Here wheat has gone up during the week 50c, flour 25c, and other grains in sympathy have all advanced more or less.

**Flour.**—The market has been quite active for the week past, and towards the close is fully 25c higher. Red wheat brands are worth \$4 75, and white \$5, and \$1 05 for No. 2 red, and was scarce.

**Corn.**—In consequence of an advance in other places, has nominally been put 5c higher, but we hear of no sales that would indicate its precise value.

**Oats.**—Have changed hands to some extent at 36c, but there does not appear to be much doing in this grain except for consumption.

**Rye.**—Is a few cents higher, selling now at 62c per bushel.

**Barley.**—Remains unchanged; good spring barley bringing \$1 20 to 25c per cwt., with fair demand and supply.

**Corn meal.**—Is higher and more active. Several large lots have been sold lately at \$1 75 per 100 lbs. for fine.

**Millstuffs.**—Are but little inquired for, and are nominally unchanged.

**Potatoes.**—Are quiet, the supply just about equaling the demand. They bring from wagons 80c to 85c.

**Provisions.**  
The provision market is now beginning to attract more attention as the season for packing approaches. What will be the prominent characteristics of the market this year are not yet clearly seen. Operators are commencing very cautiously, and during the early part of the packing season, there is not likely to be much excitement.

**Mess pork.**—In this city has declined 50c in consequence of a decline in Cincinnati. It now sells in lots of 10 or 20 bbls. at \$16.

**Lard.**—Is steady at 12 1/2c, hams at 12 1/2c and shoulder at 8c.

**Butter.**—Is in fair supply, but the market is no lower. Firkin sells at about 14c, and roll butter at 16c to 17c.

**Eggs.**—Are quiet and without change. We quote 11c to 12 1/2c according to the quantity purchased.

**Live Stock, &c.**  
In the live stock market there is no noticeable change. The demand for city use is fully met and for packing there is as yet not much inquiry. We quote:

Beef cattle 100 lbs. gross..... 22 50 to 30 00  
" 2d quality..... 22 50 to 25 00  
Sheep, each..... 2 25 to 2 75  
Calves, each..... 3 00 to 4 00  
Fat hogs, cross, 200 lbs..... 4 50 to 5 00  
Dressed hogs, net..... 6 50 to 7 00

At Albany this week the receipts of cattle were large, the average quality about equal to last week's. At the opening of the market there were few buyers from New York, but as it became more evident that the market would be well stocked, buyers held off and at the close took only on their own terms.

The *Tribune* says of the New York Market:  
We have found it necessary to reduce our quotations again this week more than we advanced them last week, and although the average quality of the stock is decidedly better, the average price will be more than half a cent less; the best, with very few exceptions reaching only ten cents net a pound, and a great many selling at 9c that would have sold at 10c last week. Generally, however, the falling off is much more upon the medium and lower grades than upon the best sorts.

The number of cattle yarded on Tuesday was several hundred head larger than on the previous Tuesday, and the average quality better, though nothing like what it should be in quality of stock or fatness.

Number reported for this market at Forty-fourth street 4,208.

The prices to-day are quoted as follows:

First quality..... 9 50 to 10 00  
Medium..... 7 50 to 8 00  
Ordinary..... 6 50 to 7 00  
Some extra good may be quoted at..... 10 00 to 10 50  
The general average of the market..... 7 50 to 8 00  
The most of the sales range from..... 7 00 to 7 50

The sheep market is reported "net as good as last week," but we cannot give the exact ratio of variation; and even when the sales seem to average the same there may be a considerable difference to the drover—for, in a dull or overstocked market, a drove of sheep averaging only 5c a head less than a week previous knocks off all the profits. So far as we can judge, the average is 25c less than last week upon the same grades. The supply has been very large, according to the reports from the several markets, and it is still coming in strong to-day, and nearly all from this State—the proportion at Brown's from New York is remarkably large, and indicates a general selling off of stock, and most of it only in fair stock condition.

Our quotations for live hogs this week must be reduced to meet the condition of things—say corn-fed hogs, 5 1/2c to 6 1/2c live weight; for dressing hogs, 5 1/2c to 6 1/2c. The market does not appear to be overstocked very much, but as packing has not commenced, the trade is confined to the city retailers, and to go outward, and the stock does not accumulate so as to make a glut. The sort that sell the best are those of about 150 lbs. gross, well fattened, such as are wanted for city-cured hams and for lard, which is in good demand.

**Wool.**  
The N. Y. Economist this week says of wool:—  
Since our last there has been very little done in any description. Some 20,000 lb fleece, and 20,000 lb pulled found purchasers at prices within our unexaggerated quotations. Foreign is quiet but firm, as the market is for all kinds:

Am. Saxony fleeces..... 50 00 to 55 00  
Am. full blood Merino..... 45 00 to 50 00  
Am. 3/4 and 1/2 Merino..... 40 00 to 45 00  
Am. active and 1/2 Merino..... 35 00 to 40 00  
Extra, Pulled..... 30 00 to 35 00  
Superior, Pulled..... 25 00 to 30 00  
No 1, Pulled..... 20 00 to 25 00

**Wool!**  
The undersigned invites the attention of the Farmers of Michigan desiring to procure Leicester and Southdown sheep for breeding purposes, to his flock from which he proposes to sell one and one-half year old, both ewes and bucks at low prices, also April lambs weighing from 80 to 100 pounds.  
E. T. BRYAN,  
Marquette, Calhoun Co., Michigan, Oct. 18, 1859.  
49-4w

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Grand Rapids, Oct. 26, 1859.

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E. T. BRYAN,  
Marquette, Calhoun Co., Michigan, Oct. 18, 1859.  
49-4w

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H. OSBORN & CO.  
28-6m

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A large stock and good variety of cloths, stocking yarn, &c., always on hand.  
He will pay the highest market price in cash, or cloth at wholesale prices, for any quantity of wool delivered at his factory.  
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WILLIAM WALLACE,  
Battle Creek, May, 1859. 28-6m

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Arrives at Monroe at 8:58 A.M. and 8:30 P.M.  
Toledo at 9:35 A.M. and 4:30 P.M.  
Leaves Toledo at 10:15 A.M. and 5:20 P.M.  
Arrives at Cleveland at 1:10 P.M. and 9:20 P.M.  
From Chicago for Detroit:  
Leaves Chicago at 6:00 A.M., 8:00 A.M. and 8:00 P.M.  
From Cleveland for Detroit:  
Leaves Cleveland at 4:00 A.M., 11:25 A.M., and 6:30 P.M.  
Toledo at 4:10 P.M. from Chicago, Adrian, Cleveland and Toledo at 1:35 A.M., 12:15 P.M. and 7:15 P.M.

**CONNECTIONS:**  
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The 1:00 P.M. Train connects at Toledo with Express Train for Cleveland, Buffalo, and New York—arriving in Cleveland at 9:30 P.M. and New York at 9:20 P.M.—next evening, and with Express Train for Pittsburgh.  
The 5:00 P.M. Train, connects at Adrian with Express Train for Chicago—arriving in Chicago at 7:00 A.M.  
The 6:30 P.M. Train from Cleveland, and 10:35 P.M. Train from Toledo, arrives in Detroit at 1:35 A.M.—making direct connection at Detroit with Express Train on Great Western Railway for Suspension Bridge and Niagara Falls.  
The 11:25 A.M. Train from Cleveland; the 6 A.M. Train from Chicago via Adrian, the 8 A.M. Train over Air Line via Toledo and 4:10 P.M. Train from Toledo, makes direct connection at Detroit with Express Train on Great Western Railway for Suspension Bridge and Niagara Falls, leaving Detroit at 8:00 P.M.  
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ROCHESTER, OAKLAND, CO., MICH., FEBY, 1859.  
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In answer to your inquiry, "How we like the Hand Scarifier," we reply that we are highly pleased with it—it is the greatest labor saving machine for its cost that we have ever used, or seen. For all root crops sown in drills it is invaluable. One man with this machine can do more work in one day than five men can with hoes, and do it better. We have used it two seasons and would rather pay twenty dollars for one than do without it.  
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**MORE TO BE ADMIRER THAN THE**  
**RICHEST DIADDEM**  
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**Worn by Kings or Emperors.**

**What? Why a Beautiful Head of Hair.**  
Because it is the ornament God Himself provided for all our race. Reader, although the rose may bloom ever so brightly in the glowing cheek, and the eye be ever so sparkling, the teeth be those of pearls, if the head is bereft of its covering, or the hair be snarled and shriveled, harsh and dry, or worse still, if sprinkled with gray, nature will lose half her charms. Prof. Wood's Hair Restorative, if used two or three times a week, will restore and permanently secure to all such an ornament. Read the following and judge. The writer of the first is the celebrated *Platist, Thalberg*.

New York, April 19, 1858.  
DR. WOOD:—Dear Sir:—Permit me to express to you the obligations I am under for the entire restoration of my hair to its original color: about the time of my arrival in the United States it was rapidly becoming gray, but upon the application of your "Hair Restorative" I soon recovered its original hue. I consider your restorative as a very wonderful invention, quite efficacious as well as agreeable. I am, dear sir, yours truly,  
S. THALBERG.

"Drych a' Gwylydyet."  
Welsh Newspaper office, 13, Nassau st., April 12, 1858.  
PROF. O. J. WOOD:—Dear Sir:—Some month or six weeks ago I received a bottle of your Hair Restorative, and gave it my wife, who concluded to try it on her hair, little thinking at the time that it would restore the gray hair to its original color, but to her as well as my surprise, after a few weeks' trial it has performed that wonderful effect by turning all the gray hairs to a dark brown, at the same time beautifying and thickening the hair. I have recovered its original hue. I consider your restorative to all persons in want of such a change of the hair.  
CHARLES CARDEW.

New York, July 25, 1857.  
PROF. O. J. WOOD:—With confidence do I recommend your Hair Restorative, as being the most efficacious article I ever saw. Since using your Hair Restorative my hair has grown dark and I now feel confident that a few more applications will restore them to their natural color. It also has relieved me of all dandruff and unpleasant itching, so common among persons who perspire freely.  
J. G. KILBY.

PROF. WOOD:—About two years ago my hair commenced falling out and turning gray; I was fast becoming bald, and had tried many remedies to no effect. I commenced using your Restorative in January last. A few applications fastened my hair firmly. If began to fill up, grow out, and turned back to its former color. By the time it is fully restored to its original color, health and appearance, and I cheerfully recommend its use to all.  
J. D. HOES.

Chicago, Ill., May 1, 1857.  
The Restorative is put up in bottles of 3 sizes, viz: large, medium, and small; the small holds 1/4 a pint, and retails for one dollar per bottle; the medium holds at least twenty per cent. more in proportion than the small, retails for two dollars per bottle; the large holds a quart, forty per cent. more in proportion, and retails \$3.  
C. J. WOOD & CO., Proprietors, 812 Broadway, New York (in the City of New York, at the corner of Broadway and 114 Market St., St. Louis, Mo.)  
And sold by all good Druggists and Fancy Goods Dealers.

**THE WILLIS' STUMP PULLER**  
Is the most powerful and most economical machine in use for pulling stumps, and will clear a field in less time than any other invention of a like kind.  
Twenty-three stumps have been pulled with this machine in an hour and fifteen minutes. The undersigned will sell machines and rights to use and manufacture in any part of Michigan, except the counties of Hillsdale, Branch, Wayne, Washtenaw, Jackson, Calhoun, Kalamazoo, Van Buren, Macomb, Genesee, Shiawassee, Saginaw, Tuscola, and St. Clair, which are already sold.  
All necessary information as to prices, and mode of using, will be given on application to  
DAVID BLACKMAE, Ypsilanti,  
or to R. F. JOHNSTONE, Editor Michigan Farmer.  
The Machines are manufactured at the Detroit Locomotive Works from the best Lake Superior Iron. [3]

**DAINES' AMERICAN**  
**DRAIN TILE MAKER.**  
The Best and Cheapest Tile Machine in the World.  
Forty-one first Premiums awarded to it at State and County Fairs. First Premium at the National Fair, at Louisville, Ky., 1857.

The TILE MACHINE invented by JOHN DAINES, of Birmingham, Oakland county, Michigan, is now being manufactured in the most thorough manner, and is offered to the farming community as the  
Cheapest, Most Labor-Saving and Most Complete Invention,  
enabling farmers to make their own Tiles, that has yet been put before the Agriculturists of the United States, at a reduced price.

These machines are made of iron, are easily worked, any man being able to manufacture a first rate article after a few hours practice.  
They cost delivered in Detroit only \$100. They have two dies, for three and four inch tile; and extra dies to accompany the machine cost \$20 each.  
These machines will manufacture per day, according to the force employed, from 150 TO 250 RODES OF HORSESHOE OR PIPE TILE. The machine weighs but 500 pounds, and can be packed and sent to any part of the United States, or to foreign countries, as easily as a piano. With this machine, any farmer who has a fair quantity of clay on his farm, can manufacture his own Tiles at a cheap rate, and easily save the price of the machine when in operation, takes up no more room than an ordinary sized kitchen table; it may be worked by two or three men, as may be found most convenient and economical, or a man and two boys can keep it in full operation.

For Simplicity, Durability, Economy, Cheapness, and amount of work, this Tile Maker Challenges the World!  
At the present time, when thorough draining has become a necessity on all rural lands, the simplest and cheapest means of furnishing farmers with a draining material far superior to any other material now used for that purpose.  
Applications for these machines may be addressed to JOHN DAINES, Birmingham, Mich.

**J. L. HURD & CO.**  
DETROIT MICH.  
Produce and Shipping Merchants  
Agents and Consignees for the following Lines:  
**AMERICAN TRANSPORTATION COMPANY.**  
CAPITAL \$900,000.  
**WESTERN TRANSPORTATION COMPANY.**  
CAPITAL \$900,000.  
**AND THE NEW YORK CENTRAL R. R. CO.**

We would respectfully announce to the Millers, Merchants and Manufacturers of Michigan, that the recent reduction of Canal Tolls on the Erie Canal, will enable us to carry cargo, from Detroit,  
FLOUR, WHEAT, CORN, OATS, WOOL, ASHES, HIDES,  
And all other products of Michigan, at prices much below those of former years. Our line are  
THE MODEL LINES OF THE COUNTRY.  
J. L. HURD & CO.,  
Foot of Second-st.  
[11-1y]

**GLEN BLACK HAWK**  
FOR SALE.  
GLEN BLACK HAWK, 6 years old, jet black, perfectly kind and gentle in the harness, single or double, and cost the second premium, \$50, at the National Horse Show at Kalamazoo, in October last—was a good traveler, and for style cannot be beat; perfectly sound, and a sure foot getter; will be sold at a bargain. Any one wishing a good stock horse cannot do better than give me a call. Pedigree—Sire Lone Star, dam Messenger. Lone Star was by Vermont or Hill Black Hawk, was a jet black, and sold to a Philadelphia company for \$3,000.  
F. E. ELDRED,  
Detroit, January 1859, [15] 228

**HAIR MATRESSES.**  
Their customers can rely upon getting a genuine article. CORN-HUSK MATRESSES & STRAW PALLIASES constantly on hand. For the trade we keep constantly a large stock of Mahogany and Rosewood Veneer.  
STEVENS & ZUG.

**DRAIN TILE!**  
WE KEEP CONSTANTLY ON HAND THE different kinds of Drain Tile, at PENFIELD'S, 108 Woodward Avenue.

**FEVER AND AGUE,**  
from which mankind suffer over a large part of the globe, is the consequence of a diseased action in the system, induced by the poisonous miasm of vegetable decay. This miasm is evolved by the action of solar heat on wet soil, and rises with the watery vapor from the earth's surface, and the virus is taken with it through the lungs into the blood. There it acts as an irritating poison on the internal viscera and excretory organs of the body. The liver becomes torpid and fails to secrete not only this virus, but also the bile from the blood. Both the virus and the bile accumulate in the circulation, and produce violent constitutional disorder. The spleen, the kidneys, and the stomach sympathize with the liver, and become disordered also. Finally, the insidious influence, concentrated in the whole blood of the body, leaves the surface, and rushes to the central organs with congestive violence. This is the CHILL. But in this effort it fails. Then the FEVER follows, in which the blood leaves the central organs and rushes to the surface, as if in another effort to expel the irritating poison through that other great excretory—the skin. In this it also fails, and the system abandoned to the exhausted, and waits for the recovery of strength to repeat the hopeless paroxysms of FEVER AND AGUE. Such constitutional disorder will of course undermine the health if it is not removed.

We have labored to find, and have found, an antidote, which neutralizes this malarious poison in the blood, and stimulates the liver to expel it from the body. As it should so it does cure this afflicting disorder with perfect certainty. And it does more, or rather does what is of more service to those subject to this infection. If taken in season it expels it from the system as it is absorbed, and thus keeps those who are attacked from its attacks; keeps the system in health although exposed to the disease. Consequently it not only cures, but protects from the great variety of affections which are induced by this malarious influence, such as Remittent Fever, Chill Fever, Dumb, or Malarial Fever, Neuralgia, Rheumatism, Gout, Blindness, Toothache, Earache, Catarrh, Asthma, Palpitations, Painful Affections of the Spleen, Stomach, Colic, Paralysis, and Painful Affections of the Stomach and Bowels, all of which, when arising from this cause will be found to assume more or less the intermittent type. This "ACRE CURE" removes the cause of these derangements, and cures the disease. This it accomplishes by stimulating the excretory to expel the virus from the system; and these organs by degrees become habituated to do this their duty, and their own accord. Hence arises what we term *acclimation*. Time may accomplish the same end, but often life is not long enough, or is sacrificed in the attempt, while this "ACRE CURE" does it once, and with safety. We have great reason to believe this a cure as well as a remedy for the whole class of diseases which are caused by the miasmatic infection, than any other which has been discovered; and it has still another important advantage to the public, which is, that it is cheap as well as good.

**AYER'S AGUE CURE,**  
Prepared by Dr. J. C. AYER, LOWELL, MASS.  
All our remedies are for sale by J. S. Farrand, Detroit, and by all Druggists every where. aug2m

**PRICE ONE DOLLAR PER BOTTLE.**  
Prepared by Dr. J. C. AYER, LOWELL, MASS.  
All our remedies are for sale by J. S. Farrand, Detroit, and by all Druggists every where. aug2m

**SANFORD'S**  
**LIVER INVIGORATOR.**  
NEVER DEBILITATES.  
It is compounded entirely from Gums, and has become an established Standard Medicine, known and approved by all that have used it, and is now resorted to by thousands of those who have given up all hope of relief, as it cures in my possession.

The dose must be adapted to the temperament of the individual taking it, and used in such quantities as to act gently. Let the dictates of your judgment guide you in the use of the LIVER INVIGORATOR. In complaints, Biliousness, Dropsy, Habitual Constipation, Cholera Morbida, Flatulency, Sour Stomach, Indigestion, Cholera, Jaundice, Nephritis, Hematuria, Ordinary Family SICK HEADACHE, (as thousands of testimonials will testify), in twenty-three cases out of every hundred, if two or three doses are taken at once, they are giving their testimony in its favor.

**MINI WATER IN THE MOUTH WITH**  
**LIVER INVIGORATOR, AND SWEETENED**  
**BOTH TOGETHER.**  
Price One Dollar per Bottle.  
—ALSO—  
**SANFORD'S**  
**FAMILY**  
**CATHARTIC PILLS**  
COMPOUNDED FROM  
Pure Vegetable Extracts, and put up in GLASS CASES, Air Tight, and will keep in any climate.

The Family Cathartic Pill is a gentle but active Cathartic, has been used in my practice for many years, and has long been the favorite of all those who have induced me to place them in the profession well known to all. The FAMILY CATHARTIC PILLS are compounded from a variety of the purest Vegetable extracts, which act on the alimentary canal, and are cases where a Cathartic is required, such as Constipation, P